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*November, 1948.***To the Chairman and Members of the Health Committee.**

LADIES AND GENTLEMEN,

I have the honour to present my Report for the year 1947.

For the first time since taking up office, it is possible for me to issue this Report within twelve months of the year to which it relates. This is due largely to the improved office organization to which I referred in the introduction to my last Report.

This is probably the last Report in the form which has become traditional over the last forty years. Its successors will deal with many of the existing services in a new guise and with some new ones. The present difficulty in recruiting technical staff makes it necessary to warn the Committee that some services—particularly the dental—may show a decline.

This Report is being presented to the County Health Committee, though it relates to work done before this Committee was established. It is hoped that it may give new members of the Committee an insight into the work of the Health Department. A great deal of the routine work in this Department does not involve any Committee points and, as a consequence, it is apt to be overlooked. The Reports on pages 37–47, prepared by the County Health Inspector, will give some idea of the work of one section of this Department, which has not been affected by the National Health Service, and may not be widely known.

Those members of the Committee who represent County District Councils will be particularly interested in the concluding paragraph of the report on Rural Housing, where there is a reference to the problem of the existing unfit house. This problem may well prove to be as formidable as the provision of new houses, and the longer action is deferred, the greater it will become.

The attention of those who are particularly interested in Maternity and Child Welfare is directed to the report on Maternal Mortality, on p. 9. A maternal mortality rate of 0·5 per 1,000 births, taken over the County as a whole, is an achievement which cannot be passed without comment.

On p. 28 there is a short note on the Gas and Air Analgesia Scheme which is being tried out in this County. The scheme is still experimental, but it is being watched with great interest by the Ministry of Health and various bodies concerned with the relief of pain in midwifery.

On p. 36 there is a short note on the poliomyelitis (infantile paralysis) outbreak, which occurred in this County in the late summer of 1947. Nowadays, a County Medical Officer is so considerably immersed in medical administration that he may sometimes forget that his primary duty is to safeguard the health of the people in the County. A distressing outbreak of this kind very quickly puts his ideas in focus. It will be seen that it was possible for us to take precautionary action as soon as the existence of the epidemic became known. The County Council assumed full and direct financial responsibility for providing help in diagnosis, treatment, and aftercare where it was required. This centralization of responsibility in the County Council made it possible to ensure that every case, without delay, got the type of help it needed. One wonders whether, under the new regime, it will be possible in similar circumstances to co-ordinate the activities of the General Medical, Consultant, Hospital, Laboratory, and Local Health Authority services to achieve the same results.

By the time the next foreword comes to be written, the Appointed Day will have been forgotten, and this is a fitting opportunity for me to record my appreciation of the support given to me by the Committees in presenting the Schemes under Section 20 of the Act, and to the members of my staff for the work they have done in preparing these schemes.

I am, Ladies and Gentlemen,

Your obedient servant,

J. L. DUNLOP,

County Medical Officer.

COMMITTEES AND CHAIRMEN.

Health.

G. Rollo Walker.

*Public Health.*H. E. Fern, O.B.E. (until June, 1947).
G. Rollo Walker (from June, 1947).*Public Assistance.*

Sir David Rutherford.

Tuberculosis.

Major R. P. Woodhouse.

Maternity and Child Welfare.

Mrs. V. Martin-Smith, M.B.E.

Mental Deficiency.

H. Fletcher.

*Blind Persons.*S. J. Goddard (until November, 1947).
Mrs. E. G. Beall (from November, 1947).

STAFF.

(As at 31st December, 1947.)

County Medical Officer.

J. L. Dunlop, M.D., D.P.H.

Deputy County Medical Officer.

W. Stewart, M.B., Ch.B., D.P.H.

Chief Tuberculosis Officer.

A. P. Ford, M.R.C.S., L.R.C.P., D.P.H.

County Dental Officer.

A. C. Wilson, L.D.S., R.C.S.

Senior Assistant County Medical Officer.

F. D. M. Livingstone, B.A., M.B., B.Chir., M.R.C.P., D.C.H., D.P.H.

*Tuberculosis Officers.*V. C. Benson, M.A., M.R.C.S., L.R.C.P.
B. Coutts, M.B., Ch.B., D.P.H.
E. G. Dommen, M.B., Ch.B.*Assistant County Medical Officers.*R. M. Allinson, M.B., Ch.B., D.P.H.
A. R. Chalmers, M.D., Ch.B., D.P.H.
F. H. M. Dummer, M.B., Ch.B., D.P.H.
H. W. Hall, M.B., Ch.B., D.P.H.
L. S. Karpati, M.D., (Graz).
H. M. Keith, M.B., Ch.B.
M. H. Kennaway, M.B., Ch.B., D.P.H.
M. S. Miller, B.A., M.B., Ch.B., B.A.O., D.P.H.
W. H. P. Minto, M.B., Ch.B., D.P.H.
S. J. Moynihan, M.R.C.S., L.R.C.P.
H. E. D. E. Ormiston, M.B., B.S., D.P.H.*Honorary Obstetric Adviser.*

F. Neon. Reynolds, F.R.C.S.(Ed.), F.R.C.O.G.

Honorary Obstetric Analgesist.

J. E. Elam, B.A., M.R.C.S., L.R.C.P., L.M.S.S.A.

County Consulting Psychiatrist.

W. J. T. Kimber, M.R.C.S., L.R.C.P., D.P.M.

County Ophthalmic Officer.

K. F. Matthews, M.R.C.S., L.R.C.P., D.O.M.S., D.P.H.*

Venereal Diseases Officers.

P. A. Clements, M.B., B.S.*

F. C. Doble, M.R.C.S., L.R.C.P.*

J. Morton, M.D., Ch.B., D.P.H.

Superintendent Health Visitor and Supervisor of Midwives.

Miss F. MacDonald, S.R.N., S.C.M., C.R.S.I., H.V., Q.N., M.T.D., T.A.

County Health Inspector.

J. W. Webb, Cert. S.I.B., M.R.S.I.

Nursery Supervisor.

Miss F. E. Hobbs, S.R.N.

Social Worker Under the Mental Deficiency Acts.

Miss M. Greenwood.

Almoners.

Miss J. R. Horton (Tuberculosis).

Miss M. Howard-Jones.

Miss P. Morfey, M.A.

Home Helps Organizer.

Miss E. Madders.

Chief Clerk.

P. T. H. Crandon.

* Part-time Officers.

*Cell Barnes Mental Deficiency Colony.*Medical Superintendent Noel Burke, M.R.C.S., L.R.C.P., D.P.M.,
D.M.R.E.

Matron Miss P. C. Challens.

King Street Maternity Home, Watford.

Medical Officer in Charge S. A. Scorer, M.B., B.S., D.Obst.R.C O.G.

Matron Miss D. B. Lane, M.B.E.

Foxholes Maternity Home, Hitchin.

Medical Officer D. W. James, M.B., B.S., M.R.C.O.G.

Matron Miss E. W. Dodd.

Ware Park Sanatorium.

Acting Medical Superintendent A. P. Ford, M.R.C.S., L.R.C.P., D.P.H.

Matron Miss E. Coates.

St. Margaretsbury Children's Short Stay Home.

Matron Mrs. A. I. Parkinson.

Russells Ante- and Post-Natal Hostel.

Matron Mrs. K. Rossiter-Hill.

MEDICAL OFFICERS OF HEALTH AND SANITARY INSPECTORS OF COUNTY DISTRICTS.

<i>Medical Officer of Health.</i>	<i>County District.</i>	<i>Sanitary Inspector as at 31.12.47.</i>
Dr. R. C. M. Pearson	Borough of Watford	Mr. R. V. Jacob
Dr. J. D. Dickson	Welwyn Garden City U.D.	Mr. M. Stockdale
	Welwyn R.D.	Mr. C. B. Borthwick
	Hatfield R.D.	Mr. J. R. Howarth
Dr. M. Gross	Borough of Hemel Hempstead	Mr. A. C. Horne
	Berkhamsted U.D.	Mr. C. E. Brogan
	Tring U.D.	Mr. H. N. Hedges
	Berkhamsted R.D.	Mr. J. Oaks
	Hemel Hempstead R.D.	Mr. R. H. T. Chappell
Dr. W. Harvey	Bushey U.D.	Mr. A. C. F. Gisborne
	Chorleywood U.D.	Mr. W. H. Scott
	Rickmansworth U.D.	Mr. C. R. Alexander
	Watford R.D.	Mr. S. N. Grigg
Dr. G. W. Everett (temporary).	Elstree R.D.	Mr. A. D. S. Blackhall
Dr. A. L. Hyatt (temporary).	Barnet U.D.	Mr. C. W. Hill
Dr. N. Macfadyen	Hitchin U.D.	Mr. N. Holt
	Royston U.D.	Mr. S. M. Jackson
	Hitchin R.D.	Mr. S. T. Gunning
Dr. C. R. Hillis (temporary).	Cheshunt U.D.	Mr. C. Wilson
Dr. C. L. Elder (from 1.3.47 to 30.11.47).	City of St. Albans	Mr. R. E. C. Goddard
Dr. M. H. Kennaway (acting from 1.12.47).	St. Albans R.D.	Mr. D. J. Graham
	Harpenden U.D.	Mr. E. Mengham
Dr. C. M. Scott (temporary).	East Barnet U.D.	Mr. E. Houghton
Dr. B. Suggitt	Baldock U.D.	Mr. B. W. E. Makepiece
	Letchworth U.D.	Mr. A. Jump
	Stevenage U.D.	Mr. H. Foden
Dr. A. D. Whitelaw (resigned 30.9.47).	Borough of Hertford.	Mr. J. Barnish
	Bishop's Stortford U.D.	Mr. N. F. Cripps
	Hoddesdon U.D.	Mr. W. N. David
	Sawbridgeworth U.D.	Mr. J. A. Yates
	Ware U.D.	Mr. C. J. Lucas
Dr. C. M. Billington (temporary from 27.10.47).	Braughing R.D.	Mr. E. E. Wateridge
	Hertford R.D.	Mr. H. E. Gilby
	Ware R.D.	Mr. A. D. C. Goold

THE HEALTH OF THE COUNTY

TABLE 1.
STATISTICAL SUMMARY.

	URBAN			RURAL			COUNTY		
	1945	1946	1947	1945	1946	1947	1945	1946	1947
Death-rate	10·8	10·1	10·9	9·9	9·9	10·8	10·5	10·0	10·9
Live Birth-rate	16·4	19·0	19·5	16·2	18·6	19·2	16·4	18·9	19·4
Infant Mortality-rate	33·2	25·2	29·6	32·6	30·6	34·5	33·1	26·6	30·9
Epidemic Death-rate	0·03	0·04	0·07	0·04	0·05	0·07	0·03	0·04	0·07
Phthisis Death-rate	0·36	0·33	0·39	0·23	0·23	0·37	0·33	0·30	0·38
Cancer Death-rate	1·8	1·7	1·74	1·7	1·5	1·70	1·8	1·7	1·73
Maternal Mortality	1·1	1·6	0·48	1·7	0·7	0·68	1·2	1·4	0·53

This summary of the principal vital statistics is prepared from data supplied by the Registrar-General.

In this and subsequent Tables, Infant Mortality is expressed as a rate per thousand live births and Maternal Mortality is expressed per thousand total births.

TABLE 2.
POPULATION AND ACREAGE.

	ACREAGE (Land and Water).	POPULATION			
		Estimate, 1944*	Estimate, 1945*	Estimate, 1946*	Estimate, 1947*
Urban Districts	90,321	397,850	393,380	411,220	421,050
Rural Districts	314,202	148,290	141,630	145,990	149,669
County	404,523	546,140	535,010	557,210	570,719
England and Wales	37,339,215	42,424,000 (Estimated at 31st December, 1947.)			

* To Mid Year.

TABLE 3.
DEATH-RATE.
(Per 1,000 Population.)

	Hertfordshire						England and Wales
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	
1931-40 (Average for ten years).	3,438	10·2	1,318	10·0	4,756	10·1	12·2
1941	4,745	10·9	1,752	10·5	6,497	10·8	12·9
1942	4,225	10·2	1,563	10·0	5,788	10·1	11·6
1943	4,482	11·2	1,435	9·5	5,917	10·7	12·1
1944	4,313	10·8	1,505	10·2	5,818	10·7	11·9
1945	4,236	10·8	1,400	9·9	5,636	10·5	11·4
1946	4,159	10·1	1,441	9·9	5,600	10·0	11·5
1947	4,576	10·9	1,623	10·8	6,198	10·9	12·0

There was an increase of 598 deaths in the County compared with the previous year. This led to an increase of 0·9 per thousand in the death-rate. With an ageing population it is inevitable that the death-rate will ultimately show rises.

TABLE 4.
LIVE BIRTH-RATE.
(Per 1,000 Population.)

	Hertfordshire						England and Wales
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	
1931-40 (Average for ten years).	4,794	14·3	1,798	13·9	6,592	13·7	14·9
1941	5,633	13·0	2,060	12·3	7,693	12·8	14·2
1942	6,814	16·5	2,399	15·3	9,213	16·2	15·8
1943	6,623	16·5	2,388	15·9	9,011	16·3	16·5
1944	7,460	18·8	2,644	17·8	10,104	18·5	18·0
1945	6,467	16·4	2,297	16·2	8,764	16·4	16·1
1946	7,806	19·0	2,716	18·6	10,522	18·9	19·1
1947	8,195	19·5	2,870	19·2	11,065	19·4	20·5

It should be noted that the figures given here relate only to the births which, in the opinion of the Registrar-General, were attributable to Hertfordshire residents.

There was an increase of 543 live births in the County compared with 1946, giving an increased rate of 0.5 per thousand. It is generally agreed that the high birth-rate is a sequel to the end of the war and it is unlikely the rate will be maintained at its present level.

TABLE 5.
STILLBIRTH RATE.

	Number of Stillbirths			Stillbirth Rate (per 1,000 total births)		
	1945	1946	1947	1945	1946	1947
Urban Districts	159	202	152	24.0	25.2	18.2
Rural Districts	49	69	58	20.9	24.8	19.9
Total County	208	271	210	23.2	25.1	18.7
England and Wales	19,451	22,915	21,827	27.6	27.2	23.9

Stillbirths are the outcome of several factors, some known and probably more unknown, and the stillbirth rate is accepted to a considerable extent as a reflection on the health of child-bearing women in the population and of the adequacy of the ante-natal care which they receive. A reduction of 61 in the number of stillbirths in a year when there was a considerable increase in the total number of births is a creditable achievement.

TABLE 6.
INFANT MORTALITY.
(Per 1,000 Live Births.)

	Hertfordshire						England and Wales Rate
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	
1931-40 (Average for ten years).	197	41	65	36	262	39	58
1941	280	48	91	41	371	46	59
1942	218	31	69	28	287	31	51
1943	216	33	81	34	297	33	49
1944	259	35	76	29	335	33	46
1945	215	33	75	33	290	33	46
1946	197	25	83	31	280	27	43
1947	243	30	99	35	342	31	41

Last year we allowed ourselves to derive some satisfaction from the fact that the Infant Mortality Rate for 1946 (27) was the lowest on record for the County. The 1947 rate rose to 31 per thousand at a time when the national rate fell from 43 to 41.

The principal increases in the number of deaths of infants under one year were from the following causes :—

TABLE 7.

Cause of Death	No. of deaths of infants under one year		
	1946	1947	Increase
Pneumonia	31	47	16
Diarrhœa	18	31	13
Prematurity	75	79	4
Congenital malformation, birth injuries, infant diseases	122	139	17
Other violent causes	8	18	10

It is some consolation that several of these causes are beyond our control in the light of present knowledge. These figures show the desirability of intensive research into the causes of prematurity and of congenital malformation, a subject which has already attracted the attention of pædiatricians and geneticists.

TABLE 8.

MATERNAL MORTALITY.

NUMBER OF DEATHS OF MOTHERS PER 1,000 BIRTHS.

	Hertfordshire						England and Wales Rate
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	
1931-40 (for ten- year period).	130	2.7	62	3.4	192	3.1	—
1941	10	1.7	6	2.7	16	2.0	2.7
1942	15	2.2	4	1.7	19	2.1	2.4
1943	12	1.8	4	1.7	16	1.8	2.3
1944	21	2.8	6	2.3	27	2.7	1.9
1945	7	1.1	4	1.7	11	1.2	1.8
1946	13	1.6	2	0.7	15	1.4	1.4
1947	4	0.5	2	0.7	6	0.5	1.2

A Maternal Mortality rate of 0.5 per thousand for the County is a most satisfactory achievement in which the maternity services developed under the auspices of Maternity and Child Welfare in past years may claim a share.

It is unwise to be unduly elated by this result in the first year when the rate has fallen dramatically to a decimal point. It is known that other countries can maintain a Maternal Mortality rate of less than one per thousand, and it remains to be seen whether we can maintain or improve on that in Hertfordshire. This depends on many things, including the standard of midwifery of the midwives employed by the Hertfordshire County Council and the hospitals and the standard of obstetrics of general practitioners and of the specialists employed by the Regional Hospital Boards.

The retiring Maternity and Child Welfare Committee can feel that their unflinching support to the County Maternity services in the past years has borne fruit in the last full year of their control and has set a standard to the several new bodies to whom their responsibilities transfer under the new service.

TABLE 9.

DEATHS FROM CANCER OR MALIGNANT DISEASES.

(Per 1,000 Population.)

	Hertfordshire						England and Wales Rate
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	
1931-40 (average for ten years).	507	1.5	186	1.4	693	1.4	1.4
1941	694	1.6	264	1.5	958	1.6	1.6
1942	675	1.6	235	1.5	910	1.6	1.7
1943	711	1.8	219	1.5	930	1.7	1.7
1944	706	1.8	254	1.7	960	1.8	1.7
1945	723	1.8	235	1.7	958	1.8	1.9
1946	706	1.7	222	1.5	928	1.7	1.9
1947	731	1.8	254	1.7	985	1.7	1.9

TABLE 10.

DETAILS OF LIVE BIRTHS AND INFANT DEATHS IN DISTRICTS.—1947.

Districts	Live Births				Total	No. of Infant Deaths					Infant Mortality Rate
	Legitimate		Illegitimate			Legitimate		Illegitimate		Total	
	Males	Females	Males	Females		Males	Females	Males	Females		
URBAN—											
Baldock	57	50	3	1	111	3	—	—	—	3	27·03
Barnet	222	230	9	9	470	5	3	1	1	10	21·28
Berkhamsted	102	85	4	5	196	4	2	1	—	7	35·71
Bishop's Stortford	107	95	3	12	217	6	4	2	1	13	59·91
Bushey	135	148	4	9	296	5	3	—	—	8	27·03
Cheshunt	254	225	8	7	494	6	5	—	—	11	22·27
Chorleywood	28	28	—	1	57	2	1	—	—	3	52·63
East Barnet	346	328	10	14	698	9	11	1	—	21	30·09
Harpenden	113	126	2	4	245	7	6	—	—	13	53·06
Hemel Hempstead	246	230	8	7	491	6	7	—	1	14	28·51
Hertford	133	112	7	5	257	5	4	2	—	11	42·80
Hitchin	160	170	8	8	346	8	4	—	—	12	34·68
Hoddesdon	132	114	6	6	253	4	2	—	—	6	23·26
Letchworth	181	182	7	4	374	4	3	—	—	7	18·72
Rickmansworth	260	230	17	6	513	10	5	1	—	16	31·19
Royston	43	38	3	5	89	—	—	—	—	—	—
St. Albans	370	362	16	18	766	11	11	1	1	24	31·33
Sawbridgeworth	32	43	3	3	81	1	1	—	—	2	24·69
Stevenage	62	50	3	2	117	2	1	—	—	3	25·64
Tring	60	45	5	4	114	3	—	1	1	5	43·86
Ware	85	68	2	2	157	4	—	1	—	5	31·85
Watford	701	651	38	44	1,434	28	10	2	1	41	28·59
Welwyn Garden City	199	196	11	8	414	5	3	—	—	8	19·32
Total Urban	4,028	3,806	177	184	8,195	138	86	13	6	243	29·65
RURAL—											
Berkhamsted	52	46	1	1	100	1	1	—	—	2	20·00
Braughing	92	98	7	4	201	—	8	—	1	9	44·77
Elstree	127	114	7	1	249	4	5	—	—	9	36·14
Hatfield	212	184	7	11	414	6	10	1	—	17	41·06
Hemel Hempstead	118	120	2	10	250	2	4	1	—	7	28·00
Hertford	88	72	2	4	166	1	1	—	1	3	18·07
Hitchin	195	191	5	7	398	5	3	1	—	9	22·61
St. Albans	195	197	3	12	407	11	11	—	—	22	54·05
Ware	96	97	5	5	203	5	1	—	1	7	34·48
Watford	171	201	3	13	388	7	2	—	1	10	25·77
Welwyn	44	46	4	—	94	3	1	—	—	4	42·55
Total Rural	1,390	1,366	46	68	2,870	45	47	3	4	99	34·49
Total County	5,418	5,172	223	252	11,065	183	133	16	10	342	30·92

The Deaths of Legitimate and Illegitimate children respectively in the Urban and Rural districts in the County are shown below as a rate per thousand of live births of both types.

Legitimate.

Urban Districts	28.59
Rural "	33.38
County	29.84

Illegitimate.

Urban Districts	52.63
Rural "	61.40
County	54.73

TABLE 11.
TUBERCULOSIS.
 DEATH-RATE FROM PULMONARY TUBERCULOSIS.
 (Per 1,000 Population.)

	Hertfordshire						England and Wales Rate
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	
1931-40 (average for ten years).	151	0·45	48	0·37	199	0·43	0·6
1941 . . .	201	0·46	66	0·39	267	0·44	0·5
1942 . . .	163	0·40	59	0·38	222	0·39	0·5
1943 . . .	151	0·38	40	0·27	191	0·35	0·5
1944 . . .	155	0·39	47	0·32	202	0·37	0·4
1945 . . .	141	0·36	33	0·23	174	0·33	0·6
1946 . . .	134	0·33	33	0·23	167	0·30	0·5
1947 . . .	164	0·39	56	0·37	220	0·38	0·5

TABLE 12.
 DEATH-RATES FROM NON-PULMONARY TUBERCULOSIS.
 (Per 1,000 Population.)

	Hertfordshire						England and Wales Rate
	Urban		Rural		County		
	Number	Rate	Number	Rate	Number	Rate	
1941 . . .	42	0·09	19	0·11	61	0·10	0·12
1942 . . .	36	0·09	13	0·08	49	0·09	0·11
1943 . . .	39	0·10	12	0·08	51	0·09	0·10
1944 . . .	33	0·08	11	0·07	44	0·08	0·09
1945 . . .	20	0·05	7	0·05	27	0·05	0·10
1946 . . .	26	0·06	12	0·08	38	0·07	0·08
1947 . . .	19	0·04	6	0·04	25	0·04	0·08

TABLE 13.
 TABLE GIVING NOTIFICATIONS OF PULMONARY AND NON-PULMONARY
 TUBERCULOSIS.

	1945				1946				1947			
	No. of cases notified			Attack rate per 1,000	No. of cases notified			Attack rate per 1,000	No. of cases notified			Attack rate per 1,000
	M	F	Total		M	F	Total		M	F	Total	
<i>Pulmonary.</i>												
Urban . . .	258	142	400	1·01	246	151	397	0·96	237	151	388	0·92
Rural . . .	70	56	126	0·88	78	45	123	0·84	80	43	123	0·82
County . . .	328	198	526	0·98	324	196	520	0·93	317	194	511	0·89
<i>Non-Pulmonary.</i>												
Urban . . .	45	59	104	0·26	35	28	63	0·15	36	40	76	0·18
Rural . . .	19	31	50	0·35	15	25	40	0·27	21	16	37	0·24
County . . .	64	90	154	0·29	50	53	103	0·18	57	56	113	0·19
<i>Pulmonary and Non-Pulmonary.</i>												
Urban . . .	303	201	504	1·28	281	179	460	1·12	273	191	464	1·10
Rural . . .	89	87	176	1·24	93	70	163	1·11	101	59	160	1·07
County . . .	392	288	680	1·27	374	249	623	1·12	374	250	624	1·09

TABLE 14.

REPORT OF THE TUBERCULOSIS WORK CARRIED OUT BY HEALTH VISITORS AND DISTRICT NURSES.

	1945		1946		1947	
	Cases	Visits	Cases	Visits	Cases	Visits
Cases attended by District Nurses.	318 (157 Nursing cases 161 Observation cases)	—	310 (189 Nursing cases 121 Observation cases)	—	214 (159 Nursing cases 55 Observation cases)	—
No. of visits by District Nurses.	—	8,580	—	7,697	—	6,456
Cases attended by County Council Health Visitors.	11	—	15	—	31	—
No. of visits by County Council Health Visitors.	—	351	—	130	—	698
Totals	329	8,931	325	7,827	245	7,154

	1945.	1946.	1947.
No. of attendances by Health Visitors and District Nurses at Tuberculosis Clinic sessions	678	493	383

In addition to the above, the two Tuberculosis Nurses attended 646 Tuberculosis Clinic sessions and carried out 1,596 visits to the homes of patients in 1947.

REPORT OF CHIEF TUBERCULOSIS OFFICER.

During the year 1947 the difficulties with regard to the provision of institutional treatment were by no means diminished. The beds at both Watford and East Herts Isolation Hospitals had to be closed for several months owing to the shortage of nursing staff, and it became increasingly difficult to obtain beds in institutions outside the County. The result was that the average waiting time for admission was about 16 weeks.

The most notable feature of the year was the commencement of the examination of the general public by means of Mass Radiography. A report from the Secretary of the Unit is given below, from which it will be seen that the Unit is already fulfilling a useful purpose.

TABLE 15.

DEATH-RATE AND NOTIFICATION RATE PER 1,000 OF THE POPULATION.

Year	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
Death-rate—										
Pulmonary	0·38	0·35	0·39	0·44	0·39	0·35	0·37	0·33	0·30	0·38
Non-pulmonary	0·10	0·09	0·08	0·10	0·09	0·09	0·08	0·05	0·07	0·04
Notification rate—										
Pulmonary	0·68	0·62	0·59	0·80	0·79	0·84	0·93	0·98	0·93	0·89
Non-pulmonary	0·23	0·20	0·17	0·28	0·26	0·38	0·31	0·29	0·18	0·19

From the above table it will be noted that there has been a considerable rise in the death-rate from pulmonary tuberculosis during the year and that the figure has now reached that of 1938. On the other hand, in spite of the fact that the Mass Radiography Unit has been in operation the notification rate has fallen. The figures with regard to non-pulmonary tuberculosis are based on such a small number of cases that any rise or fall is of no great significance statistically.

Table 16 gives an indication of the amount of work done during the year and it will be seen that there has been a further rise in the number of new cases examined and also in the number of attendances at the dispensaries.

TABLE 16.

Year	1943	1944	1945	1946	1947
Total new cases examined . . .	2,594	2,823	2,574	2,547	2,767
Cases other than contacts . . .	1,915	1,990	1,724	1,711	1,803
Cases definitely tuberculous . . .	669	696	656	589	673
Percentage definitely tuberculous . .	34·9	34·9	38·0	34·4	37·3
Contacts	679	833	850	836	964
Contacts definitely tuberculous . .	56	46	54	58	55
Percentage definitely tuberculous . .	8·2	5·5	6·3	6·9	5·7
Number of patients on register . . .	2,077	2,246	2,439	2,541	2,757
Number of attendances at dispensary .	10,713	11,904	13,564	15,059	16,676

COUNTY SANATORIUM, WARE PARK.

The most noteworthy event occurring during 1947 was the retirement of Miss Rimmer from the post of Matron. Miss Rimmer had served the sanatorium and the County Council well for 20 years. Her efforts during the war years will long be remembered by those who worked with her; nothing was too much trouble and no task too menial for her to undertake.

Miss Rimmer was succeeded by her assistant, Miss E. Coates. This appointment was extremely popular with the nursing staff. Miss Coates herself has already served the sanatorium for 18 years.

An innovation during the year was the appointment of a full-time handicraft instructor. This should be of great benefit to the patients who have come to rely considerably on the diversional therapy provided.

Although there was no improvement with regard to the situation in obtaining nurses, it was possible to keep all the beds occupied during the year.

Below are set out details of the admissions, discharges, and deaths during the year.

Number admitted	259
Number discharged	197
Number of deaths	28
Of the patients who were discharged—	
Improved	167
Stationary	26
Worse	4
	<hr/> 197 <hr/>
Patients' average stay in Sanatorium	166 days
The average number of beds occupied during the year	92
X-ray films taken during the year	1,074
Number of patients on whom collapse therapy was commenced during the year	82
Patients sent to hospitals for surgical treatment—	
Thoracoscopy and Adhesion-section	47
Thoracoplasty	12
Monaldi	1
Phrenic Crush	36
	<hr/> 96 <hr/>

TUBERCULOSIS ALMONER'S REPORT.

The following tables show the number of cases assisted and to which sources they were referred for assistance :—

ASSISTANCE REQUIRED.

Free milk	249
Glasses and dentures	11
Extra nourishment	104
Financial help	64
Bedding	103
Clothing	148
School dinners	67
Dockets	37
Coupons	51

Care of children	12
Housing	30
Insurance	20
Pensions	45
Occupational therapy	76
Fares and transport	35
Legal advice	2
Resettlement	15
Comforts	22

METHODS OF ASSISTING PATIENTS.

I. *Ministry of Health Scheme 266/T.*

Number of patients assisted to
claim Discretionary Allowances 122

British Legion	36
Soldiers', Sailors', and Airmen's Families Association	12
W.V.S.	104
Hospital Car Service	2
Merchant Navy Hospital Service	1
N.A.P.T.	1
Royal Alfred Benevolent Fund	1
Royal Air Force Benevolent Fund	1
Women's Land Army Benevo- lent Fund	1
Hertfordshire Society for the Blind	1

II. *Public Authorities.*

Ministry of Health	2
Ministry of Labour	9
Ministry of Pensions	6
Ministry of Food	1
Ministry of National Insurance	4
Board of Trade	74
Assistance Board	4
Public Assistance Department	44
Rating Officers	3
Housing Managers	28
Approved Societies	9
Scotland Yard	1
Herts Insurance Committee	1
Herts Army Welfare	5
Herts C.C. Education Depart- ment	18
Herts C.C. Home Helps Organizer	2
Herts C.C. St. Margaretsbury Residential Nursery	5

IV. *Samaritan Fund.*

Fares	17
Pocket money	10
Clothing	14
Bedding	27
Glasses and dentures	7
Doctors' accounts	4
Emergency financial help	9
Laundry	2
Miscellaneous	3

III. *Voluntary Agencies.*

British Red Cross Emergency Help Committee	132
British Red Cross Civilian Welfare	10
British Red Cross occupational therapist	76

Total number of payments	240
Total amount expended	£384 9s.
Total visits by Almoner	1,181

All patients newly diagnosed as tuberculous, patients recommended sanatorium or hospital treatment, and patients advised to undergo treatment in bed at home have been visited by the almoner within a week or two of the Tuberculosis Officers' recommendations (sooner when urgent need was reported).

The purpose of these initial visits has been to find out the problems and needs of patients and to try to answer the many queries which have arisen in their minds between the time of being told by the Tuberculosis Officer that they must undergo treatment and the time of the almoner's visit.

Most of these questions relate to income versus expenses worries, clothing for sanatorium wear, and bedding; this last problem is partly due to the fact that new patients invariably have to make arrangements for sleeping alone and partly due to the necessity for long spells of bed-rest while awaiting sanatorium vacancies.

The housing problem is as acute as ever but it can be reported that of the 28 cases referred for special consideration to the housing managers, nine are known to have been rehoused, 11 are known to be still waiting, three have died and their families are no longer on the waiting lists. One other patient with a solicitor's aid has been able to return to her own house previously occupied by a tenant.

Patients have all been interviewed again shortly after their admission to sanatorium or hospital; at this stage their problems are usually of less

magnitude, being often insurance conundrums, fares for visitors, pocket money, or renewal of clothing.

Patients are again seen by the Almoner shortly before discharge or soon after their return home. By now their main problem is one of resettlement, but during this year many patients have gone home still unfit for work, in which case the problem is one of occupation rather than of work; it will be noted that the number of cases referred to the British Red Cross Occupational Therapist during 1947 is 76, as compared with 31 in 1946. It will be also seen that very few patients were referred to the Ministry of Labour Disablement Resettlement Officers. It would seem that patients discharged from the sanatorium while still unfit for work are able to make outside contacts more easily during that period at home before the Tuberculosis Officer tells them they may work. Many are therefore able to resettle themselves; they do not all find suitable work, but are compelled to take what is available in their locality to avoid travelling. There is no doubt that there is an increasing need for sheltered employment for T.B. patients particularly as the war years recede and labour shortage is no longer an incentive to employers to employ physically unreliable tuberculous workers.

Visits by the Almoner to the clinics have been made at fortnightly or monthly intervals in order to keep in touch with the large number of patients not at any given moment receiving individual attention by home visiting. It will be more satisfactory when each clinic can be visited each week as will be made possible by the appointment in the near future of an Assistant Almoner.

MASS MINIATURE RADIOGRAPHY UNIT.

The Health Committee will be interested in the following report of the first nine months work of the Mass Miniature Radiography Unit in the County. This report was presented to the Tuberculosis Committee on 8th June, 1948.

General.—The Unit commenced work on the 17th March, 1947, and during the ensuing nine months nearly twenty-three thousand persons attended for the miniature X-ray examination. It will be noted from Table VII that these persons were drawn from widely scattered districts and that the Unit has attempted, as far as possible, to give an even distribution of the X-ray facilities throughout the County.

The Unit did not have an easy first few months as industry had only just returned to production after the fuel crisis and it was necessary to make several hasty alterations in the programme. The vast majority of firms co-operated with the Unit and workers attended in good numbers. On several occasions the team worked at night so that the night staffs at factories could be examined.

Whilst the response from the workers has been generally satisfactory it is obvious that there is a great need for more propaganda and health education on the matter of tuberculosis. If we could get the population to realize that early tuberculosis is curable and that Mass Radiography offers the easiest way of detecting the early case, then the response from the workers would undoubtedly be much more satisfactory. The Unit carries out propaganda in a variety of ways, talks to workers or works councils by the Organizing Secretary, leaflets in pay packets, posters, etc., but many firms, although glad to arrange for their workers to be X-rayed, are not prepared to incur further loss of production time on such propaganda talks, etc. In most towns it has been possible to arrange for the showing of the film "Mass Radiography" at a local cinema. All this propaganda, however, is purely local and it does seem that there is a great need for propaganda for Mass Radiography on a national basis.

Accommodation.—During the period under review the Unit moved twelve times and in common with other units experienced the usual difficulties with regard to accommodation, particularly electrical supply and darkroom. The Darkroom Van which is being supplied by the Ministry of Health and has already been issued to a few Units, will be extremely helpful in overcoming these

difficulties. The van includes a first-class mobile darkroom with air-conditioning and drying cabinets for films, provision for the carrying of the X-ray equipment with a drop-side and hand-winch for the easy loading and unloading, and a motor driven electric generator specially designed for supplying a steady working current to the Unit. These vans are not yet being produced in large numbers and the Ministry cannot give us a firm date for delivery.

Results.—During the period under review 22,914 persons were examined. Of these, 15,093 were males and 7,821 were females. These are set out in the Ministry of Health age groups in Table I.

The recalls for large films totalled 1,620 or 7 per cent of the total examined and those subsequently required to attend for an interview with the Unit Doctor totalled 474 or 2·1 per cent of the total examined. Table II giving the disposal of these cases shows that the nine months working produced 221 new cases for the Hertfordshire chest clinics and 43 cases for out-county clinics.

The disposal of the cases referred to chest clinics is given in Table III and when studied in conjunction with Table IV it will be seen that of the 264 cases referred to the chest clinics, 48 have been diagnosed as active cases. Table IV also gives by age groups the rates of active cases per thousand examinees. 32 of these active cases have been recommended sanatorium or equivalent treatment and the remaining 16 have been retained under Dispensary observation.

The number of active cases is lower than the National figure and tends to reflect the generally lower incidence rate of tuberculosis in Hertfordshire.

The Scheme for Doctors' Patients.—In June the Unit commenced a scheme whereby General Practitioners were invited to send along for X-ray any persons whom they felt would benefit from a chest X-ray but in whom they had no reason to suspect tuberculosis. The latter cases, of course, continued to be sent to the Tuberculosis Dispensary as heretofore. Table V sets out the first results of this experiment; 85 individuals attended under the scheme, four being referred to the Chest Clinic of whom one was recommended sanatorium treatment. It is intended to continue with this scheme and it is already apparent that General Practitioners are giving it increased support.

Other Diseases.—Reference to Table VI will show that the work of the Unit is not only confined to the diagnosis of tuberculosis and in this table the more important of the other abnormalities are shown together with the cases of non-significant pulmonary tuberculosis.

TABLE I.

NUMBER OF INDIVIDUALS ATTENDING FOR MINIATURE X-RAY.

	14 or under	15-24	25-34	35-44	45-59	60 +	Total
Male .	149	2,362	4,548	4,324	3,216	494	15,093
Female .	172	3,357	1,937	1,393	903	59	7,821
Total .	321	5,719	6,485	5,717	4,119	553	22,914

TABLE II.

NUMBERS RECALLED FOR LARGE FILMS AND DOCTOR'S INTERVIEW, SHOWING SUBSEQUENT DISPOSAL.

Large Films		Interview with Doctor		Referred to Chest Clinic		Referred to Own Doctor	Refused Treatment
No.	%	No.	%	Herts	Out-County		
1,620	7	474	2·1	221	43	73	7

TABLE III.

DISPOSAL OF NEWLY-DISCOVERED CASES REFERRED TO CHEST CLINICS.

	<i>Hertford- shire.</i>	<i>Out- County.</i>
Discharged from Clinic—requiring no further action	79	4
Discharged from Clinic—referred to own Doctor	4	—
Retained under Dispensary observation	104	32
Recommended Domiciliary treatment	4	—
Recommended Sanatorium treatment	19	5
Recommended Hospital treatment	1	—
Patients returned to their homes and referred to out-county clinics (including three recommended Sanatorium treat- ment)	5	—
Failed to attend at Clinic	5	2
Totals	<u>221</u>	<u>43</u>

TABLE IV.

CASES OF ACTIVE PULMONARY TUBERCULOSIS SHOWN BY AGE GROUPS.

	14 or Under	15-24	25-34	35-44	45-59	60 +	Total
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
Total examined	149 172	2,362 3,357	4,548 1,937	4,324 1,393	3,216 903	494 59	15,093 7,821
No. of cases	— —	5 8	13 3	10 3	4 —	2 —	34 14
Rate per 1,000	— —	2.1 2.38	2.85 1.54	2.31 2.15	1.24 —	4.05 —	2.25 1.79
Combined rate per 1,000	—	2.27	2.46	2.27	0.97	3.62	2.09

M = Male, F = Female.

TABLE V.

RESULTS OF SCHEME FOR EXAMINATION OF DOCTORS' PATIENTS.

No. Examined	No. Recalled for Large Films	No. Recalled for Interview with Doctor	No. Referred to Chest Clinic
85	9	4	4

Disposal of those referred to Chest Clinic :—

Recommended Sanatorium Treatment	1
Referred to own Doctor	1
Discharged from Clinic—Bronchiectasis	1
Failed to attend Clinic	1

TABLE VI.

SOME OTHER FINDINGS.

Abnormalities of bony thorax and lungs	122
Chronic bronchitis and emphysema	106
Bronchiectasis	29
Pneumokoniosis	11
Intrathoracic new growth	5
Cardiovascular lesions	116
Tuberculosis, inactive, primary lesions	104
Tuberculosis, inactive, post-primary	371
Tuberculosis, spontaneous pneumothorax	1
Non-pulmonary tuberculosis (spine)	1
Other miscellaneous conditions	342
Total	<u>1,208</u>

TABLE VII.

DETAILS OF MOVES OF THE UNIT DURING THE PERIOD.

<i>Date.</i>	<i>Area.</i>	<i>Persons Examined.</i>	<i>Numbers</i>
17th Mar.—23rd April .	East Barnet . . .	Factory employees (Standard Telephones).	3,523
24th April—2nd May	St. Albans (Cell Barnes)	Staff and patients of Mental Colony.	483
6th May—22nd May .	Hertford (County Hall).	County Hall staff and local firms.	1,452
27th May—6th June .	Ware	Allen and Hanburys and local firms.	1,236
9th June—31st July .	Welwyn Garden City .	Local firms	5,034
1st Sept.—31st Dec. .	Watford (five different centres).	Local firms	11,186
			<u>22,914 "</u>

In the reorganization of the Health Services under the 1946 Act the direction of this Unit will pass to the Regional Hospital Board. The loss of direct control of this important weapon in the preventive health armament is to be regretted but was inevitable in the circumstances since Mass Miniature Radiography cannot stop at detection but must be closely linked with hospital beds and specialist opinion. The complications of the new Health Service in problems like this are fully appreciated by the officers concerned, and it will be for us to see that difficulties are overcome and that the service continues to be used in the interests of the people of the County.

VENEREAL DISEASES.

The numbers of Hertfordshire patients attending treatment centres in London which are recognized under the London and Home Counties Scheme were as follows :—

TABLE 18.

	Cases		Total Attendances	In-Patient Days
	V.D.	Not V.D.		
1943 .	52	204	4,035	319
1944 .	43	157	3,052	306
1945 .	78	186	3,212	264
1946 .	93	259	3,077	165
1947 .	91	201	3,113	160

The numbers of patients attending the treatment centres set up in this County at the outset of the war at St. Albans and subsequently at Hitchin, Watford, and Bishop's Stortford, were as follows :—

TABLE 19.

	Syp.	Gon.	Not V.D.	Not Diagnosed at end of year	Total attendances	Blood Tests	Intermediate Treatments
1943 .	136	265	678	41	10,512	2,968	3,467
1944 .	185	321	806	6	13,557	4,814	2,697
1945 .	184	303	886	31	13,342	4,696	1,111
1946 .	298	432	1,096	29	13,918	6,340	824
1947 .	294	256	697	15	10,892	4,882	1,215

During 1947 eight notifications were received under Regulation 33B, compared with seven in the previous year. Of these, one was a double notification

TABLE 17.—CAUSES OF DEATH, 1947.

	AGE GROUPS—URBAN DISTRICTS												AGE GROUPS—RURAL DISTRICTS												County Total
	0 —			1 —			5 —			15 —			45 —			65 —			All Ages		Total M&F				
	M		F	M		F	M		F	M		F	M		F	M		F	M	F					
1. Typhoid and Paratyphoid fevers	—	—		—	—		—	—		—	—		—	—		—	—		—	—	1	1	2		
2. Cerebro spinal fever	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
3. Scarlet fever	1	2		3	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
4. Whooping cough	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
5. Diphtheria	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
6. Tuberculosis of Respiratory system	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
7. Other forms of Tuberculosis	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
8. Syphilitic diseases	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
9. Influenza	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
10. Measles	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
11. Acute poliomyelitis and polio-encephalitis	1	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
12. Acute inf. encephalitis	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
13. Cancer of buccal cavity : and oesophagus (M) : uterus (F)	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
14. Cancer of stomach and duodenum	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
15. Cancer of breast	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
16. Cancer of all other sites	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
17. Diabetes	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
18. Intracranial vascular lesions	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
19. Heart disease	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
20. Other diseases of circulatory system	1	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
21. Bronchitis	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
22. Pneumonia	20	12		6	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
23. Other respiratory diseases	1	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
24. Ulcer of stomach or duodenum	13	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
25. Diarrhoea under two years	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
26. Appendicitis	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
27. Other digestive diseases	2	—		1	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
28. Nephritis	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
29. Puerperal and post abortion sepsis	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
30. Other maternal causes	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
31. Premature birth	39	17		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
32. Congenital malformation : infant birth injuries : infant diseases	58	42		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
33. Suicide	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
34. Road traffic accidents	—	—		—	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
35. Other violent causes	10	7		3	—		—	—		—	—		—	—		—	—		—	—	—	—	—		
36. All other causes	3	3		2	6		2	5		2	2		3	3		3	3		2	2	13	6	19		
Total	151	94		25	22		198	165		580	424		1330	1542		2308	2270		4578	48	51	5	4		

a female—who, it was found on investigation, did not reside in the County. Four of the other cases attended for treatment, two were not traced owing to insufficient information and one lived outside the County.

The notification of suspected persons under Regulation 33B ceased at the end of the year but the Minister of Health has expressed a wish that local authorities should continue an active policy of contact tracing and he has made suggestions how this should be done.

Our war-time experience in the use of Regulation 33B and, incidentally, its misuse in acting on one notification instead of two, has convinced me of the value of contact follow up work. One welcomes the Minister's lead, and the Medical Officers of the treatment centres have been asked to follow up wherever possible. (See also Almoner's Report on p. 34.)

Continued use was made of the unit of six beds for female patients at Osterhills Hospital, St. Albans, and during 1947 a total of 145 patients were admitted.

BLIND PERSONS.

Under the Blind Persons Act, 1920, the County Council makes provision for (a) the supervision of children under school age ; (b) employment of blind persons ; (c) a scheme for home workers ; (d) home teachers ; (e) maintenance grants in homes ; (f) maintenance grants in hostels ; (g) assistance to unemployable or other destitute blind persons ; (h) registration ; (i) general social welfare.

Educable children are dealt with by the Education Committee.

REGISTRATION.—The number of blind persons registered in the County on 31st December in each year was as follows :—

	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
1945 .	318	412	730
1946 .	347	425	772
1947 .	352	437	789

The Hertfordshire Society for the Blind continues to do good work, and the close co-operation between the County Council and the Society is largely responsible for the efficient welfare service now in operation. The Society employs four home teachers for domiciliary work amongst people on the Blind Register. These officers also do the preliminary work in the ascertainment of blind persons. The County Council pays annually £2 10s. per person on the Register for home teaching, visiting, and administration.

TABLE 20.
VACCINATIONS.

Year	Primary		Re-vaccinations	Total during year	No. of live births during year	Percentage vaccinated (i.e. those vaccinated under one year)
	Under one year of age	Over one year				
1942	2,714	381	221	3,316	9,213	29·5
1943	2,717	193	77	2,987	9,011	30·2
1944	3,175	3,881	2,415	9,471	10,104	31·4
1945	2,439	260	112	2,811	8,764	27·8
1946	3,453	393	366	4,212	10,522	32·8
1947	3,405	384	427	4,216	11,065	30·8

DIPHTHERIA IMMUNIZATION.

Number of children immunized during 1947—

Under 5 years of age	5,976
Over 5 years of age	1,816
Number of children given supplementary injection .	8,025

In November, 1946, a circular letter stressing the importance of the supplementary injections, to be given at five-year intervals, was sent to the parents and guardians of all children attending County Council schools. With

the co-operation of the Education Department, Health Visitors, and District Nurses, this scheme to increase the numbers of children receiving a supplementary injection has met with success. In the year 1946 3,419 children were given this injection whilst in 1947 this figure has risen to 8,025. Most of these injections have been given by the County Council's medical staff at the welfare centres, clinics, and at routine school medical inspections.

The value of diphtheria immunization will be seen from the following summary of deaths and cases for the whole country and for Hertfordshire. The decline in the number of cases represents not only a large saving of public funds and a release of hospital accommodation and nurses for other work, but also a considerable reduction in illness and invalidism.

Whole Country.

<i>Year.</i>	<i>Deaths.</i>	<i>No. of cases.</i>
1940 . .	2,480	46,281
1941 . .	2,641	50,797
1942 . .	1,827	41,404
1943 . .	1,371	34,662
1944 . .	934	29,949
1945 . .	722	25,246
1946 . .	472	18,283
1947 *	245	10,469

* Provisional figure.

Hertfordshire.

1940 . .	20	323
1941 . .	26	312
1942 . .	5	102
1943 . .	6	75
1944 . .	8	77
1945 . .	1	56
1946 . .	1	71
1947 . .	2	25

For the ten-year period 1831-40 the average number of deaths and notifications was as follows :—

	<i>Deaths.</i>	<i>Notifications.</i>
Whole Country . .	2,800	55,300
Hertfordshire . .	16	268

HERTFORDSHIRE COUNTY COUNCIL HOSPITALS.

In my last report I said I referred to the contrast between the hospitals as they were in 1939 with the service to be handed to the Regional Hospital Boards. The Medical Superintendents were invited to give me, for inclusion in this report, a short note on the history of the hospitals from 1939-48. The following notes from Dr. Karran, of Shrodells, and Dr. Segar, of Wellhouse, give some indication of the extension of the scope of their work. It is interesting to read Dr. Young's note on the work done at the Lister Hospital which was established during the war.

Dr. Karran writes :—

“ SHRODELLS HOSPITAL, 1939-48.

1939 found this Hospital still essentially a Workhouse Infirmary. The population of Watford was, however, rapidly expanding and it was already tending to exceed these functions. A small, but highly qualified visiting staff was in being and the hospital had for some time been recognized as a training school for nurses.

At the outbreak of war the hospital was upgraded under the E.M.S. Scheme. Accommodation formerly used for “ House ” cases was converted to provide wards for the chronic sick. An X-ray department was improvised, and the Area Laboratory took over the Casual Ward.

The expected rush of casualties never came, but after the usual period of waiting, staff were soon busy enough with the ordinary run of hospital cases evacuated from blitzed London centres. Altogether, some 4,500 cases were treated as E.M.S. patients during the “ emergency ”.

All through the war, E.M.S. and Local Authority sides of the hospital

were, for various reasons, run as practically separate entities. In 1945, however, with the virtual ending of E.M.S. work, most of their equipment and such of their nursing staff as remained, were taken over, and "Shrodells" became Shrodells Hospital.

As the frustrations of the post-war period became apparent, the possibilities of building a new hospital for Watford within the next decade grew increasingly remote, and it became obvious that even our grim old buildings had before them a period of useful life. A limited programme of modernization and redecoration was accordingly started. Shortage of materials hampered this work, but fortunately a fair amount of bricks, timber, and concrete blocks left over from air-raid shelters became available.

The operating theatre and annexes had grown up haphazard from a couple of rooms. These have now been stripped, tiled, and completely re-equipped with a proper modern system of heating, lighting, and power points.

The X-ray apparatus had been hurriedly erected in 1939 in what had been staff quarters. By utilizing a ground floor ward closed owing to lack of staff, it has been possible to carve out quite a spacious department, complete with waiting room and offices. A fairly modern set had been installed in 1942, and to this has now been added a "rotating anode" type of tube and sectograph. This apparatus should last until applications of atomic research to the production of X-rays make all existing plant obsolete.

The wards in the main hospital block have now been completely redecorated in bright colours. Tiled sterilizing rooms have been added and the sterilizers removed from the ward kitchens. As each ward was cleared the opportunity was taken to overhaul lighting, power, and wireless points and, as far as possible, bathrooms and sanitary annexes were modernized and re-equipped. When the air raid shelters were demolished their rubble was used as a foundation for concrete balcony strips outside the ground floor wards.

Medical staff before the war had consisted of the Poor Law Medical Officer with one resident assistant. With occasional help from a small consulting staff these two had been responsible for the care of about 400 patients. When the war ended, such members of the E.M.S. visiting staff as were considered necessary for our needs were brought under the County Council, and the resident medical staff increased to four.

Medical equipment on a fairly liberal scale had been provided by the E.M.S. During the last two years a number of important items have been added, and the hospital now has a diathermy, the latest type of anæsthetic apparatus, and an electro-cardiograph.

It will, in fact, be possible to hand over to the Regional Board a well-equipped general hospital of some 400 beds which will play a useful part in meeting the ever-growing demands of the area until such time as hospital building on a major scale is once again a possibility."

Dr. Segar writes :—

" WELLHOUSE HOSPITAL, BARNET.

The Wellhouse Hospital entered the war with a medical staff of three whole-timers, who had the right to call in consultant staff where necessary. The annual turnover then was :—

Admissions	.	.	3,098
Operations	.	.	1,102
Maternity cases	.	.	401

Ten E.M.S. huts were added and the hospital emerged from the war as a departmentalized clinical entity, having the following special departments in charge of whole- or part-time experienced medical personnel :—

1. General Medicine.
2. General Surgery.
3. Maternity.
4. Gynæcology.
5. Diseases of the Skin.
6. Fractures and Orthopædics.
7. Puerperal Sepsis and Serious Infections.

8. Anæsthetics.
9. Diseases of the Eye.
10. Ear, Nose, and Throat.
11. Tuberculosis.
12. Pædiatrics.
13. Radiology.
14. Physical Medicine.
15. Outpatients.

The total turnover of the war years was as follows :—

Admissions	.	.	28,890
Operations	.	.	16,818
Maternity cases	.	.	3,259

One feature of the Hospital's activity during the war was the occasion when two land mines dropped in the immediate vicinity, whilst an operation was being performed in the Theatres. The Theatres were put out of action, but quickly restored by the use of tarpaulins. The operation was completed and the patient made a full recovery. Although all the buildings were heavily blasted, 108 casualties were admitted that night, 14 further operations were performed, and 48 hours later the Hospital was in full operation, no admission having been refused or diverted in the interim."

LISTER HOSPITAL, HITCHIN.

This hospital was established as a separate E.M.S. Hospital in 1943, receiving mainly Service patients. Mr. A. G. Young, the Medical Superintendent, now writes :—

" The Hospital would appear at the present time to be filling an indispensable need for the area surrounding Letchworth and Hitchin as well as helping out Luton and Dunstable Hospital which has a large waiting list. Patients come from as far afield as Leighton Buzzard on the one hand and Welwyn on the other. It has also been receiving a regular weekly convoy of patients transferred from Hackney Hospital, London."

The following figures relate to 1947 :—

Admissions	.	.	.	2,130
Surgical operations	.	.	.	1,400
Out-patient attendances	.	.	.	9,772
Physio-therapy treatments	.	.	.	9,377

MENTAL DEFICIENCY.

The official return to the Board of Control for the year 1947 was as follows :—

TABLE 21.

A. Number of mental defectives ascertained to be " subject to be dealt with " as at 31st December, 1947 :—

1. Under " Order " :—

		M.	F.	Total.
(a) (1) In Institutions (excluding cases on Licence).	Under 16 years of age	64	35	99
	Aged 16 years and over	233	225	458
(2) On Licence from Institutions.	Under 16 years of age	—	1	1
	Aged 16 years and over	35	37	72
(b) Under Guardianship (including cases on Licence).	Under 16 years of age	1	—	1
	Aged 16 years and over	11	33	44
2. In " places of safety "	Under 16 years of age	7	6	13
	Aged 16 years and over	2	3	5
3. Under Statutory Supervision		88	68	156
Of whom awaiting removal to an Institution		9	10	19
4. Action not yet taken under any one of the above headings		20	28	48

B. Number of mental defectives not at present " subject to be dealt with " but for whom the Local Authority may subsequently become liable

		25	21	46
Of whom, number under Voluntary Supervision		15	11	26

During the year 1947.

1. Cases reported by Local Education Authorities	25	18	43
Method of disposal—			
Sent to Institutions (by Order)	2	2	4
Placed under Guardianship (by Order)	—	—	—
Placed under Statutory Supervision	7	6	13
Taken to "Place of Safety"	1	2	3
Died or removed from area	—	—	—
Action not yet taken	15	8	23

It will be seen from these figures that the Local Authority are responsible for the care of 943 mental defectives, 648 of whom were in institutions or on licence from them, and 45 under guardianship.

At the end of the year there were 67 cases on the waiting list for admission to Cell Barnes Colony, of whom 19 were urgent.

During the year 1947 there has been great development in the Mental Deficiency Service. With a view to accommodating more children at the Colony, Tenterden House was bought and equipped for the use of 29 older women who were not requiring Colony training. These patients were transferred from the Colony to Tenterden House in December, 1947, but owing to the need for reorganizing at the Colony, and the lack of nursing staff, it was not possible to admit immediately 29 children to the Colony. This had to be done gradually over a period of several weeks.

It is pleasing to report that the first Occupation Centre opened in the County, in February, 1947, at Hertford. This centre caters for approximately 15 children who are living within an 8 miles radius of the town.

A second Centre was opened in Barnet in November, and approximately 10 children attend there two days a week, and it is hoped that the additional Centre which is soon to be opened in Hitchin will serve the children in the north of the County.

The ineducable children living in the Watford area have, for the past two years, been given Special Teaching for a short period each week. It has now been possible to obtain the use of a schoolroom and about 12 children are given special training there each Saturday morning.

It is hoped that it will be possible in the coming year to develop still further this valuable part of the extra-institutional care of mental defectives.

MATERNITY AND CHILD WELFARE.

ANTE-NATAL CARE.

It will be seen from the following Table 22 that the number of ante-natal clinics was reduced from 40 to 36 in 1947. The Committee will recollect the many occasions on which I have stressed the desirability of an arrangement whereby ante-natal care is given by an obstetric specialist or by a general practitioner who is in active obstetric practice and who may be called upon to respond to the emergency calls of the midwives.

In pursuance of this policy the ante-natal clinic at Bishop's Stortford has been made the responsibility of Dr. L. Samson, the obstetric specialist at Haymeads Hospital, and Dr. D. W. James, our obstetric specialist at Foxholes Maternity Home and the North Herts and South Beds Maternity Unit, Hitchin, has been asked to take charge of the organization and running of the town ante-natal clinics at Hitchin as well as the clinics serving the hospitals.

Where an ante-natal clinic could not be attached to a Maternity Unit the alternative of introducing a general practitioners' ante-natal scheme was first tried out at Harpenden in 1943 and was extended to Hoddesdon in 1945 and to the Buntingford area in 1946. This was done in the latter area with some trepidation and a close watch was kept on the results of the experiment as it was mentioned that some mothers might be willing to accept ante-natal supervision when it was associated with a pleasant afternoon at a welfare centre but they would never take the trouble to go to a general practitioner. So far as can be ascertained, the standard of ante-natal care has not been lowered in any way.

TABLE 22.
INFANT WELFARE AND ANTE-NATAL CLINICS WITH 1946 COMPARISONS.

	WELFARE CENTRES						ANTE-NATAL CLINICS							
	No. of Centres	Sessions Held	Doctors' Attendances	No. Who Attended		Children's Attendances		No. of Clinics	Sessions Held	Doctors' Attendances	No. of Patients Who Attended		Total Attendances	Average Attendance per Session
				Mothers	Children	Total	Average per Session				Ante-Natal	Post-Natal		
1946.														
County Council Centres	72	2,355	1,831	13,586	14,762	95,566	40.6	40	1,069	955	5,512	533	17,883	16.7
County Council Weighing Centres . . .	15	249	—	641	762	3,324	13.3	—	—	—	—	—	—	—
Totals . . .	87	2,604	1,831	14,227	15,524	98,890	—	40	1,069	955	5,512	533	17,883	16.7
1947.														
County Council Centres	75	2,556	1,968	15,754	16,017	112,369	43.9	36	1,003	837	3,854	482	14,276	14.2
County Council Weighing Centres . . .	*19	334	—	712	830	5,014	15.0	—	—	—	—	—	—	—
Totals . . .	*94	2,890	1,968	16,466	16,847	117,383	—	36	1,003	837	3,854	482	14,276	14.2

* Includes one Centre closed in October, 1947.

REPORT OF THE COUNTY DENTAL OFFICER ON MATERNITY AND CHILD WELFARE DENTAL SERVICES.

Facilities for dental inspection and treatment of expectant and nursing mothers and of children of pre-school age are available at the following Centres in the County :—

Abbots Langley	Knebworth
Baldock	Letchworth
Barnet, East	Much Hadham
Barnet, High	Puckeridge
Barnet, New	Radlett
Berkhamsted	Rickmansworth
Bishop's Stortford	Royston
Boreham Wood	St. Albans
Buntingford	Stevenage
Cuffley	Tring
Harpenden	Waltham Cross
Hatfield	Ware
Hemel Hempstead	Watford
Hertford	Welwyn
Hitchin	Welwyn Garden City
Hoddesdon	Wheathampstead
King's Langley	Whitwell

The requirement that cases be referred by the Assistant Medical Officers in the first instance has been retained as a matter of necessity because of the persistent shortage of dental staff. The continuation of this restriction is to be regretted, but under existing circumstances there would appear to be no alternative which would ensure that those obtaining attention are, in fact, the more urgent cases. Arrangements were made for mothers, other than those recommended by the Medical Officers, to be dentally inspected at ten Centres, and it was found that nearly two-thirds of those seen were in need of some form of dental attention. It is obvious, therefore, that the provision of facilities to cope with the demands which would be created by routine inspection of all patients attending the Maternity and Child Welfare Clinics, is not a practical proposition at the moment. The proposals submitted under the Health Service Act for the dental care of mothers and young children, included the appointment of seven additional whole-time Dental Officers by the day the Act came into force and the appointment of a further seven officers as the service developed. This staff will be needed to meet our commitments, namely, the dental examination and necessary treatment of expectant mothers as soon as possible after their initial ante-natal examination ; the examination and treatment of nursing mothers if they have not been made dentally fit during the ante-natal period, and the routine inspection at six-monthly intervals followed by treatment, where necessary, of children attending Welfare Centres and Nurseries. The possibility of providing a comprehensive priority dental service for mothers and children, in accordance with these requirements, would seem somewhat remote unless the scale of remuneration for Dental Officers employed by Local Authorities is revised sufficiently in the near future to attract suitable personnel to the Service.

Children attending Nurseries are subject to routine examination by the Dental Officers in the same way as school children ; 36 visits were made to the Nurseries during the year for this purpose, and it was found that a little under 20 per cent of these infants required attention. The teeth of the children definitely show a reduction in the tendency to caries, and this is generally attributed to the change in diet brought about by rationing and the provision of milk and other sources of vitamins. Apart from the improved calcification of the teeth and the resultant increased resistance to caries, there is some improvement in respect of dental hygiene generally and a desire on the part of the parents for their children to receive dental attention at an earlier age than was the case in the past.

In spite of our difficulties, the amount of work carried out during the year

is appreciably greater than last year—86 more mothers and 508 more children were seen. The type of treatment given has also improved, as reflected by the larger proportion of operations undertaken to save the teeth ; last year 43·2 per cent of the work was of this nature, this year the percentage is 50·7. Although efforts are made to encourage mothers and children to accept conservation treatment, it is, of course, of primary importance that the relief of pain and the eradication of sepsis should be the main consideration. The work carried out under this heading comprised 1,684 extractions and 700 administrations of general anæsthetics. These figures also show increases on the previous year, but to a lesser extent than those relating to operations undertaken to prevent teeth from becoming unsaveable.

Particulars of the work carried out during 1947 are shown in the accompanying table.

TABLE 23.
DENTAL STATISTICS.

<i>Maternity.</i>						
Number of mothers inspected	.	.	.	.	.	752
Found to require treatment	.	.	.	.	.	745
Actually treated—						
Expectant	.	.	.	.	.	480
Nursing	.	.	.	.	.	193
Total	.	.	.	.	.	673
Attendances—						
Expectant	.	.	.	.	.	793
Nursing	.	.	.	.	.	310
Total	.	.	.	.	.	1,103
Fillings	.	.	.	.	.	506
Extractions	.	.	.	.	.	1,162
Administrations of general anæsthetics	.	.	.	.	.	375
Other operations	.	.	.	.	.	374
Radiographs	.	.	.	.	.	6
Denture cases	.	.	.	.	.	26
<i>Child Welfare.</i>						
Number of children inspected—						
At Nurseries	.	.	.	.	.	1,337
At Clinics	.	.	.	.	.	542
Total	.	.	.	.	.	1,879
Found to require treatment	.	.	.	.	.	857
Actually treated	.	.	.	.	.	620
Attendances	.	.	.	.	.	885
Fillings	.	.	.	.	.	487
Extractions	.	.	.	.	.	522
Administrations of general anæsthetics	.	.	.	.	.	325
Other operations	.	.	.	.	.	371

TABLE 24.

*ANNUAL REPORT OF THE SUPERVISOR OF MIDWIVES AND
SUPERINTENDENT HEALTH VISITOR.*

	1946.	1947.
Number of Health Visitors employed by County Council	14	20
Number of Health Visitors employed by County Nursing Association	105	101
Number of infants under supervision	8,586	9,919
Number of children 1-5 under supervision	22,434	24,695
Number of Infant Welfare sessions	2,355	2,556
Number of Weighing Centre sessions	249	334

WORK OF THE SUPERVISOR OF MIDWIVES AND SUPERINTENDENT HEALTH VISITOR AND HER THREE ASSISTANTS.

	1946.	1947.
Routine inspections and special visits to Midwives and District Nurses .	861	831
Visits to Health Visitors	78	78
Other special visits	240	229
Visits to Secretaries and interviews	251	201
Visits to Infant Welfare Centres, Clinics, and Schools	228	265
Visits to Nursing Homes	165	128
Visits to Residential and Day Nurseries	180	14
Visits to Emergency Maternity Homes	89	37
Attendance at meetings	140	103
Number of talks given	41	21

MIDWIFERY STATISTICS.

	1946.	1947.
Number of Midwives who practised in the County during the year .	379	363
Number practising on 31st December	275	271
Number of these qualified to administer analgesics in accordance with the requirements of the Central Midwives Board	100	132
Number of ante-natal visits paid by Midwives	21,380	18,859
Total number of births attended by Midwives	12,773	12,705
(a) In Institutions	9,455	9,126
(b) Domiciliary	3,318	3,579
Number of domiciliary confinements attended—		
(a) By Midwives alone	1,964	2,106
(b) As Maternity Nurses	1,228	1,303
Number of Medical Aid notices issued (hospital and domiciliary)	1,587	1,414

GAS AND AIR ANALGESIA.

Position at 31st December, 1947.

<i>No. of Midwives practising in the County.</i>		<i>No. Trained in the Administration of Gas and Air Analgesia.</i>	
<i>In Institutions.</i>	<i>Domiciliary.</i>	<i>In Institutions.</i>	<i>Domiciliary.</i>
123	129	51	81

Forty-nine sets of Gas and Air Apparatus were available for use in domiciliary confinements, and the following figures show the extent to which the apparatus was used :—

Total Domiciliary Confinements in areas where apparatus available	2,915
(Midwives, 1,989 ; Maternity Nurses, 926.)	
No. given Gas and Air Analgesia	1,489 (51·1%)
(Midwives, 1,117 (56·2%) ; Maternity Nurses, 372 (40·2%).)	

During the year a fresh approach was made to the problem of increasing the use of Gas and Air Analgesia in domiciliary midwifery practice. As will be seen from the figures, the percentage of women not receiving any form of relief was still higher than one would have wished, but the difficulties in making it universally available have been considerable. The Central Midwives Board had, in the first instance, ruled that this Analgesia could only be given in a midwife's case when another midwife, trained in the use of the apparatus, was also present. This requirement reduced very considerably the number of cases which could have the use of Analgesia in childbirth. The equipment was available in many parts of the County, more was on order, and midwives were attending courses of training in its use, but the number of midwives in an area did not always permit the presence of two at a confinement.

The Board, in 1946, modified its requirements, so that the second person could be an untrained person and not necessarily a midwife. The difficulty, however, of finding—often at short notice—persons who could safely be entrusted with the use of the apparatus, lessened the benefit which otherwise would have been expected from this relaxation of the rule.

DISTRICT	LIVE BIRTHS (Registrar's Figures)		TOTAL BIRTHS ATTENDED BY MIDWIVES		INFANT DEATHS			NOTIFICATIONS				Midwives employed by Local Supervising Authority		Midwives employed by Voluntary Organizations		Midwives in Private Practice		Midwives normally employed by other Authorities but temporarily working in Hertfordshire	TOTAL NUMBER OF MIDWIVES					
	Legitimate	Illegitimate	With Doctor	As Midwife	No. of Deaths Under 1 year (Registrar's Figures)	Rate per 1,000 Live Births	Midwives' cases (Domiciliary) under 14 days	Medical Aid		Stillbirth		Domiciliary	Institution	Domiciliary	Institution	Domiciliary	Institution							
								Mother	Child	With Doctor	As Midwife													
URBAN.	107	4	45	60	3	27.03	—	2	1	4	1	—	—	2	—	—	—	4	1					
	452	18	62	311	10	21.28	2 (1P)	6	—	1	14	—	—	—	—	—	—	15	2					
	187	9	61	132	7	35.71	—	26	—	1	3	—	—	—	—	—	—	5	3					
	202	15	99	299	13	59.91	—	131	7	6	7	—	—	—	—	—	—	15	1					
	283	13	67	190	8	27.03	2 (1P)	17	2	3	4	—	—	—	—	—	—	5	7					
	479	15	181	285	11	22.27	—	36	3	—	6	—	—	—	—	—	—	7	1					
	56	1	29	21	3	52.63	1 (1P)	—	—	—	1	—	—	—	—	—	—	1	3					
	674	24	116	413	21	30.09	—	86	4	3	7	—	—	—	—	—	6	8						
	239	6	181	67	13	53.06	3	23	8	4	—	—	—	—	—	—	—	3	9					
	476	15	47	483	14	28.51	—	45	10	3	8	6	—	—	4	—	—	10	10					
	245	12	100	165	11	42.80	—	44	6	2	7	5	—	—	4	—	—	11	11					
	330	16	231	954	12	34.68	—	208	40	8	10	—	—	—	—	—	—	12	12					
	246	12	174	128	6	23.26	—	39	4	3	2	2	—	—	—	—	—	13	13					
	363	11	223	164	7	18.72	—	17	2	4	3	9	—	—	—	—	—	14	14					
	490	23	161	311	16	31.19	3 (2P)	31	8	3	4	—	—	—	—	—	—	15	15					
	81	8	128	34	—	—	—	91	1	4	4	6	—	—	—	—	—	16	16					
	732	34	211	575	24	31.33	—	4	24	1	—	—	—	—	—	—	—	17	17					
	75	6	36	60	2	24.69	1 (1P)	6	1	—	—	1	—	—	—	—	—	18	18					
	112	5	64	58	3	25.64	—	9	4	1	2	—	—	—	—	—	—	19	19					
	105	9	23	72	5	43.86	—	—	—	—	—	—	—	—	—	—	—	—	20	20				
	153	4	50	113	5	31.85	—	32	2	1	—	—	—	—	—	—	—	—	21	21				
	1,352	82	351	1,080	41	28.59	5 (3P)	188	35	2	2	15	—	5	—	—	—	40	22	22				
	395	19	186	246	8	19.32	—	26	1	2	2	4	—	—	—	—	2	5	23	23				
Total for Urban Districts	7,834	361	2,826	6,171	243	29.65	17 (10P)	1,067	163	60	109	—	5	58	16	37	204	204						
RURAL.	98	2	22	87	2	20.00	1 (1P)	4	2	—	2	—	—	3	—	—	—	3	1					
	190	11	80	115	9	44.77	—	1	1	2	1	—	—	4	—	—	—	4	2					
	241	8	75	162	9	36.14	—	20	2	1	3	—	—	—	—	—	—	3	3					
	396	18	184	1,107	17	41.06	1 (1P)	17	2	7	23	—	—	7	—	—	19	4	4					
	238	12	86	201	7	28.00	—	15	2	4	2	—	—	5	—	2	7	5	5					
	160	6	69	111	3	18.07	—	16	1	3	2	—	—	4	—	—	4	6	6					
	386	12	166	247	9	22.61	1 (1P)	34	3	4	7	—	—	11	—	—	11	8	8					
	392	15	135	242	22	54.05	1 (1P)	19	4	1	4	—	—	5	—	—	5	9	9					
	193	10	54	135	7	34.48	1 (1P)	23	2	2	1	—	—	3	—	—	3	3	3					
	372	16	118	221	10	25.77	1 (1P)	9	1	1	5	—	—	4	—	2	6	10	10					
	90	4	26	65	4	42.55	—	3	—	1	1	—	—	1	—	—	2	11	11					
Total for Rural Districts.	2,756	114	1,015	2,693	99	34.49	5 (5P)	161	23	26	51	1	—	50	—	4	67	67						
Total for Urban Districts.	7,834	361	2,826	6,171	243	29.65	17 (10P)	1,067	163	60	109	—	5	58	16	37	204	204						
Total for County	10,590	475	3,841	8,864	342	30.92	22 (15P)	1,228	186	86	160	1	5	108	16	41	271	271						
					1,414		246																	

TABLE 26.

TABLE OF HEALTH VISITORS' WORK CARRIED OUT, YEAR 1947, WITH 1946 COMPARISON.

District	Parishes in each District	No. of New Homes Visited		No. of Babies under Supervision, 31st December		Health Visits to Mothers and Babies		Health Visitors' Attendances at Welfare Centres		No. of Children aged 1-5 under Supervision, 31st December		Visits to Children 1-5 years	
		1946	1947	1946	1947	1946	1947	1946	1947	1946	1947	1946	1947
Barnet . . .	Barnet, Arkley, Totteridge.	386	361	369	399	3,249	3,073	275	230	991	1,130	3,371	2,686
Hitchin . . . (as from 15.9.47)	Hitchin .	—	39	—	120	—	179	—	25	—	322	—	575
Hoddesdon . . .	Hoddesdon .	—	167	—	179	—	760	—	105	—	495	—	897
Letchworth . . .	Letchworth and Willian.	266	461	316	344	1,346	1,193	164	158	1,076	1,158	2,227	1,372
St. Albans . . .	St. Albans .	987	865	834	904	4,399	3,038	328	327	2,538	2,567	6,011	3,653
Tring . . .	Tring . . .	69	86	72	115	641	898	53	45	172	294	836	907
Watford . . .	Oxhey .	173	228	126	140	1,416	1,139	36	48	336	320	1,990	1,282
Welwyn Garden City	Welwyn Gar- den City.	218	160	214	177	1,266	925	77	83	515	550	1,360	1,019
Nurses working under the County Nursing Associa- tion.		5,931	7,067	6,655	7,541	43,846	48,576	3,367	3,336	16,806	17,857	49,679	46,671
Totals	Totals	8,030	9,434	8,586	9,919	56,163	59,781	4,300	4,357	22,434	24,693	65,474	59,062

Dr. Elam, of Barnet, whose work in developing the use of Gas and Air Analgesia in midwifery practice is well known, had been endeavouring for several years to promote its greater use in confinements in the home. The new rule seemed to give the opportunity to obtain this increase, but there still remained to be overcome the difficulty of getting the second person in the home at the proper time. With the co-operation of the County Health Department, Dr. Elam sought to elaborate a scheme which would make it possible for a midwife to arrange in advance for the service of a well-trained lay analgesist. An approach was therefore made to the British Red Cross Society, some of whose members were already helping midwives. The Society was interested in his suggestions, and by arrangement with individual commandants, Dr. Elam gave a course of lectures on the subject of Gas and Air Analgesia to groups of Red Cross members in Hertford and Ware. He later spoke on it at the annual meeting of the Society, and the interest spread to other parts of Hertfordshire. It was hoped to have, as a result of these courses, groups of trained analgesists in different areas, and that from these groups could be formed rotas of persons who would be available to attend with the midwife at confinements. Although numerous complications arose in the practice of the scheme—difficulty of contact with the analgesist when a birth was imminent, difficulty in the conveyance of the analgesist to the home of the patient—there can be no doubt about the advantage to both the patient and the midwife of having these analgesists present at a confinement.

At the end of the year the scheme was operating in Hertford, Ware, Braughing, and Berkhamsted. It is hoped that, when greater facilities can be made available for analgesists—conveyance, telephones, and so on—the scheme in Hertfordshire will be able to be expanded and developed to bring a measure of relief to all mothers having their confinements in their homes.

MATERNITY HOMES AND HOSPITALS.

The Maternity Homes at King Street, Watford (51 beds), Foxholes, Hitchin (24 beds), and the Unit at the North Herts and South Beds Hospital, Hitchin (48 beds) remained in commission. Peartree Maternity Home, Welwyn Garden City, remained closed throughout the year owing to difficulties in getting the necessary priorities and agreement as to the nature and scope of the alterations required before it could again be put into commission as a Maternity Home.

In this connection one must pay tribute to the authorities of the City of London Maternity Hospital, and in particular to Miss Tindall, the Matron. When Bocket Hall ceased to be a Ministry of Health establishment and full responsibility was vested in the City of London Maternity Hospital there was an arrangement by which the Hertfordshire County Council had a lien on 12 beds. The fact that Peartree Maternity Home was not in operation led to our making the most unreasonable demands on the accommodation at Bocket Hall. At times as many as 25 beds were occupied by Hertfordshire patients. The lack of maternity beds at Peartree undoubtedly caused hardship in the Welwyn Garden City neighbourhood, but without the splendid co-operation of Bocket Hall this hardship would have been very much greater.

There was an important expansion in the provision of maternity beds in this County when the new maternity wards at Hempstead House were opened. The closure of the Unit at Ashridge and the increased pressure on beds at the King Street Home, Watford, had already made us give serious consideration to providing some maternity beds in the West Herts area. The situation was brought to a head by our receiving notice from the West Herts Hospital that they could no longer take County patients.

Fortunately, discussions had been held with the Medical Officer at Hempstead House on the possibility of using the "1935 block" as an obstetrical and gynaecological unit when Great Ormond Street, who had used it as a part of the E.M.S. extension during the war, returned to London. The local

Guardians Committee responsible for the running of Hempstead House and the Public Assistance Committee readily agreed that the unit should be devoted to maternity work, though this meant the loss of some excellent accommodation for the chronic sick.

Though the lack of staff and the falling off in demand has meant that the unit has not been fully used it has, nevertheless, been exceedingly valuable in giving us a reserve of maternity beds for the County as a whole and it may well be that the Regional Hospital Board will find this reserve most valuable when housing development creates a demand for increased maternity accommodation.

CHILD LIFE PROTECTION.

	<i>No. of Foster Children Visited.</i>	<i>No. of Visits Paid by Child Life Protection Visitors.</i>
1945 .	305	2,052
1946 .	293	1,863
1947 .	261	1,745

ADOPTION OF CHILDREN.

	<i>No. of Children Visited.</i>	<i>No. of Visits Paid.</i>
1945 . . .	105	550
1946 . . .	107	590
1947 . . .	175	797

NURSERIES.

During the year, places for 343 children under two and 531 places for children aged from two to five years were provided by 15 Day Nurseries and three Crèches. Lack of demand for places in the Hatfield area resulted in the closure of the Birchwood Avenue Crèche at the end of March.

Demands generally over the County increased rapidly during the year, and long waiting lists for places existed at all Nurseries with the exception of Redbourn; in all, the total waiting list at the end of the year was 1,038. "Special Demand" areas were Brunswick Park, East Barnet, Waltham Cross, Welwyn Garden City, Hoddesdon, and Hemel Hempstead. Brunswick Park itself had a waiting list of some 350.

The Joint Training Scheme operated in conjunction with the Nursery Schools was considerably enlarged during the year. This, in itself, was in turn responsible for the somewhat easier staff position which prevailed during the year. Twenty-eight students sat and passed the examination, and of these, 20 were appointed to the County Nursery staff.

An increase in the fees payable by mothers was necessitated by increased running costs; the daily fee being raised from 1s. to 1s. 6d. during March.

St. Margaretsbury's Short-Stay Residential Nursery proved invaluable, providing as it does emergency accommodation in the event of sudden illness or confinement of mothers. It is the only one of its kind in the County, and the service provided has been very much in demand, resulting in capacity booking throughout most of the year.

Structural alterations and improvements were carried out during the year, and every effort made to improve the amenities available and the service generally. Forty places are provided.

HOME HELPS.

Four local schemes were in operation and financed by the County Council during the early months of 1947, as follows:—

Rickmansworth.—Administered by the W.V.S.

St. Albans.—Administered by the District Nursing Association.

East Barnet.—Administered by the District Nursing Association.

Welwyn Garden City.—Administered by the Health Association.

Under voluntary organizers approximately 10 full-time home helps and four part-time home helps were employed in the above schemes. In addition to the voluntary organizer at Rickmansworth, authorization was given for the appointment of a part-time paid clerical assistant.

In March, Miss E. Madders was appointed County Home Help Organizer, and the above schemes were taken over entirely by the Hertfordshire County Council. Following public meetings, Local Committees were established and new centres formed at (a) Hertford, Hoddesdon, and Ware, (b) Royston, (c) Letchworth, Baldock, and Hitchin, (d) Cheshunt and Waltham Cross (covering the Cuffley and Northaw districts), (e) Elstree and Boreham Wood, and (f) Harpenden. The development of these local centres necessitated the appointment of part-time paid local organizers, and during the year eight were appointed.

A total of 163 maternity cases and 194 domestic cases received assistance in 1947; approximately half paid the full hourly charge, the others being assessed on the County Scale. The charge to householders was raised from 1s. 8d. per hour to 2s. per hour from the 1st July, 1947. A progressive scale of wages for home helps was also introduced on the 1st July, 1947, under which a home help was paid 1s. 6d. per hour, and 1s. 9d. and 2s. after six months' and twelve months' continuous service respectively, and an Appointment and Conditions of Service form was issued to all prospective home helps before being enrolled. Arrangements were made for County Council insurance in respect of liability under the Workmen's Compensation Act to be extended to all home helps.

To facilitate recruiting the County Council was granted a Certificate of Exemption under the Control of Engagement Order to advertise for recruits. An average of 26 full-time home helps or their part-time equivalent was employed from the 1st March to the 31st December, 1947, authorization having been given for a total of 54.

It will be seen that the ten centres referred to covered the urban areas of the County fairly completely. The Borough of Watford, which was a Maternity and Child Welfare Authority, was responsible for its own scheme. No attempt was made to organize a Home Helps service in the purely rural areas but authority was given for the transport of home helps to cases needing assistance in these areas. In practice, however, the supply of home helps was insufficient usually even to meet the needs of the urban areas and little use could be made of this extra facility.

ALMONER'S REPORT, 1947.

(a) CARE OF UNMARRIED MOTHERS.

During the first half of the year 129 new cases were registered as in need of assistance and 123 during the last six months of the year. These figures indicate that the volume of social work under the Unmarried Mother's Scheme was still considerable by comparison with previous years, although fewer cases were registered than in 1946.

One hundred and forty-one cases remained "current", i.e. still requiring following up and supervision, at the close of the year and, in addition, we constantly receive letters from girls with whom we have had past dealings, asking advice or help.

The County's Home of ten beds temporarily housed at "Russells", Welwyn Garden City, has completed a full year of service, and has proved invaluable, and has been welcomed enthusiastically by moral welfare and other social workers in touch with girls requiring the help it can offer. Eighty-six

girls were admitted to "Russells" during the year. Twenty-eight of these were ante-natal cases and 58 post-natal. The average length of stay was 31 and 32 days respectively.

The atmosphere of the Home is informal and happy, and very few disciplinary problems have arisen; the girls all take a share in the housework, and have given no trouble in this respect, and the opportunity that residence there affords them to think over their problems and plans, has been fully appreciated.

The Almoners arrange all admissions and are in constant touch with the girls and help with their subsequent plans. The girls' friends and relatives are encouraged to go and see them and the local clergy visit regularly.

The girls attend the local Ante-Natal Clinic, and the majority have been confined at Bocket Hall.

Approximately half the girls decide on adoption, and good homes have been found for their babies. Several girls have been placed in residential employment with their babies, usually in Ante-Natal Hostels, Residential Nurseries, Training Colleges, etc. It is found that the majority of girls prefer this type of post to private service and in all ways it appears to be more satisfactory for them. A few girls have been able to return home with their babies to do daily work while their mother cares for the child. Two of the babies were placed with foster mothers.

Forty-seven adoptions were arranged during the year. More applications from childless couples to adopt infants have been received than could be satisfied, and the year closed with a waiting list of 22 would-be adopters whom we hope to use in due course. All such applications are thoroughly investigated, and we have been fortunate in having many excellent homes at our disposal, and letters from many of those where children have been taken indicate the joy and satisfaction which adoption has given to these parents.

(b) VENEREAL DISEASES.

During 1947 a total of 432 new patients have been seen by the Almoners in the three women's Clinics, in addition to the old patients still attending.

The follow up and visiting of defaulters remains an important function and, except in very few cases, yields satisfactory results. This work is carried out in close co-operation with the Medical Officer in charge of the Clinic. Altogether 294 letters have been written and 148 visits have been paid in connection with this side of the work. Visits under Regulation 33B are included in this total. These visits have been considerably less than in 1946 owing to a large decrease in the use of Regulation 33B.

It is hoped that in the future closer liaison with the male Clinics in the County will make it possible for the Almoners to follow up named contacts of male patients following on the suggestions made by the Ministry of Health upon the cessation of Regulation 33B.

The Almoners have worked closely throughout the year with the Diocesan Workers. Altogether a total of 77 single girls have been referred to the Clinics by these Workers; of this number, the Almoners have undertaken case work in 44 instances. A total of 23 cases have also been referred by Probation Officers.

(See also report on page 18.)

TABLE 27.
NOTIFICATIONS OF INFECTIOUS DISEASES, 1947.
(Civilians only)

	Scarlet Fever	Whooping Cough	Diphtheria	Measles	Acute Pneumonia	Cerebro Spinal Fever	Acute Polymyelitis	Acute Polio- encephalitis	Dysentery	Ophthalmia Neonatorum	Puerperal Pyrexia	Para-Typhoid	Enteric or Typhoid	Erysipelas	Chicken Pox	Jaundice	Infective Hepatitis	Undulant Fever	Weil's Disease	Food Poisoning	Total for Districts
URBAN—																					
1. Baldock	5	29	—	26	7	—	4	—	—	—	19	—	—	1	50	1	—	—	—	—	123
2. Barnet	14	76	2	98	56	2	4	—	—	—	—	—	2	7	—	—	—	—	—	—	280
3. Berkhamsted	27	1	—	43	7	1	—	—	—	—	3	—	—	2	—	—	7	1	—	—	89
4. Bishop's Stortford	5	15	—	54	5	—	11	—	—	—	—	—	—	1	—	—	—	—	—	—	94
5. Bushey	12	25	—	104	1	—	3	—	—	—	33	—	—	2	—	—	—	—	—	—	187
6. Cheshunt	37	149	—	324	8	—	1	—	—	—	2	—	—	2	—	2	1	—	—	—	526
7. Chorleywood	—	—	—	14	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	15
8. East Barnet	52	64	3	413	21	1	8	—	—	—	3	—	—	10	—	—	—	—	—	—	575
9. Harpenden	17	3	1	58	7	—	3	1	1	—	—	—	—	2	—	—	—	1	—	—	92
10. Hemel Hempstead	19	3	—	242	10	—	3	2	—	—	1	1	—	—	—	—	5	1	2	—	291
11. Hertford	5	27	1	100	2	—	3	—	—	—	1	2	—	—	20	—	—	1	—	—	139
12. Hitchin	20	46	—	37	12	—	1	—	—	—	—	—	—	3	—	—	—	—	—	—	141
13. Hoddesdon	14	20	—	279	3	—	1	—	—	—	1	—	—	4	—	6	—	—	—	—	322
14. Letchworth	21	106	—	205	13	1	15	1	—	—	—	—	1	10	358	—	—	—	—	—	737
15. Rickmansworth	11	26	—	273	3	2	5	1	—	—	—	—	—	—	—	—	—	—	—	—	321
16. Royston	—	63	—	63	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	126
17. St. Albans	24	165	2	181	5	—	5	1	—	—	—	—	—	4	—	—	1	—	—	—	387
18. Sawbridgeworth	3	—	—	3	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	7
19. Stevenage	9	8	—	83	1	—	1	—	—	—	1	—	—	1	—	—	—	—	—	—	104
20. Tring	2	3	—	13	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	19
21. Ware	5	10	—	5	—	—	1	—	—	—	—	—	—	—	—	—	2	—	—	—	23
22. Watford	36	172	—	882	20	11	13	1	—	4	27	2	3	6	—	8	7	—	—	—	1,192
23. Welwyn Garden City	8	26	2	316	6	1	2	—	—	—	—	—	—	3	—	—	—	—	—	—	364
Total Urban	346	1,037	11	3,816	187	19	84	7	1	11	91	6	6	59	428	17	23	3	2	—	6,154
RURAL—																					
1. Berkhamsted	10	4	—	14	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	29
2. Braughing	9	49	—	112	8	—	2	—	—	—	—	—	—	2	—	—	—	—	—	—	182
3. Elstree	8	36	—	112	7	—	2	—	7	—	1	—	—	5	—	—	—	—	—	—	178
4. Hatfield	12	22	1	212	22	1	6	—	—	—	29	—	—	5	—	—	2	—	—	—	312
5. Hemel Hempstead	1	5	1	113	4	—	2	—	—	—	—	—	—	—	—	—	6	2	1	1	136
6. Hertford	3	32	—	67	3	—	4	—	—	—	—	—	—	—	48	—	3	—	—	—	109
7. Hitchin	34	40	5	56	8	—	6	—	—	—	1	23	—	3	—	—	1	—	—	—	204
8. St. Albans	14	45	4	156	9	—	1	1	119	—	—	—	—	2	—	—	—	—	—	—	375
9. Ware	12	35	—	97	9	1	2	—	—	—	1	—	—	4	—	—	—	—	—	—	161
10. Watford	37	61	1	145	2	—	8	—	10	—	—	—	—	1	—	—	—	—	—	—	266
11. Welwyn	8	3	2	27	—	1	—	1	—	—	—	—	—	—	—	—	1	—	—	—	43
Total Rural	148	332	14	1,111	72	3	34	3	136	—	32	23	—	22	48	—	13	2	1	1	1,995
Total County	494	1,369	25	4,927	259	22	118	10	137	11	123	29	6	81	476	17	36	5	3	1	8,149

ACUTE ANTERIOR POLIOMYELITIS.

Three cases were reported in the first five months of the year. An epidemic appeared in the County during June, when there were five cases. In the following month this number doubled itself and quite early in August it was evident that a large-scale epidemic was under way. During this month no fewer than 39 notifications were received, and in September 44 cases were notified. The incidence continued at an abnormally high level during October when 31 cases were notified, but happily there was a sharp fall after the end of this month and only eight cases were reported in November and two in December.

Thus, during the seven-month period from 1st June to 31st December, 139 notifications were received and the diagnosis was finally confirmed in 115 cases as Poliomyelitis and nine cases as Polioencephalitis. Fourteen persons died as a result of this epidemic and one died earlier in the year.

The age and sex distribution of the notified cases was :—

	Male		Female	
	Cases	Deaths	Cases	Deaths
Under 5 years	23	2	10	—
5–15 years	35	5	27	2
Over 15 years	30	5	17	1
Totals	88	12	54	3

Close liaison was established from the outset with all District Medical Officers of Health, who notified cases at once by telephone and later forwarded to the County Medical Officer a written report giving details of the history of the case and listing known contacts. The County Health Department in turn sent reports in confidence to the District Medical Officers and the military authorities, and informed Health Visitors for the area in which each case occurred.

Early in the outbreak, all hospitals in the County were advised to postpone operations for the removal of tonsils and adenoids, and dental extractions were suspended at the County Dental Clinics except in urgent cases.

Special watch was kept for the occurrence of suspicious cases in schools and nurseries, and all contacts were excluded for a 21-day period. It was, however, not found necessary to resort to school closure on any large scale, and the only action of this kind was to close one junior school for a short period and to defer for one week the reopening after the holidays of another small school.

It was realized early in the outbreak that there were two important actions required to limit the effects of the disease. The first was concerned with the early diagnosis of fresh cases, and the associated problems of tracing the source of infection and possible lines of spread to others. The second concerned the provision of adequate orthopædic treatment in hospital under the supervision of specialists for all who required it.

Accordingly, a survey was made at once of the location, type, and condition of all “iron lungs” and mechanical respiration devices which could be made available for use in Hertfordshire.

The general practitioners of the area were informed by letter that they could call in consultants :—

- (a) To aid in the diagnosis of a suspected case ; or
- (b) To advise upon the treatment of a confirmed case,

and that the County Council would pay the consultant's fee. Help was also given to some doctors to find suitable consultants in their locality or in securing admission to isolation hospitals.

The County Council later undertook full financial responsibility for the

CHIEF STATISTICS OF URBAN AND RURAL DISTRICTS.

	DISTRICT	ACREAGE	POPULATION			DEATH RATE*			LIVE BIRTH RATE*			INFANT MORTALITY RATE†			EPIDEMIC MORTALITY RATE*			DEATH-RATE FROM PHTHISIS*			DEATH-RATE FROM CANCER*			MATERNAL MORTALITY RATE‡			
			1945	1946	1947	1945	1946	1947	1945	1946	1947	1945	1946	1947	1945	1946	1947	1945	1946	1947	1945	1946	1947	1945	1946	1947	
	URBAN.																										
1	Baldock	542	5,448	5,521	5,808	9.2	10.5	8.4	17.2	18.7	19.1	43	29	27	—	—	0.17	0.18	0.54	0.34	2.0	1.8	1.5	—	—	—	1
2	Barnet	4,290	20,820	23,230	23,930	11.2	11.1	11.9	15.6	18.9	19.7	34	14	21	0.10	0.09	—	0.24	0.30	0.25	1.7	2.7	1.7	—	—	—	2
3	Berkhamsted	1,982	10,950	10,840	11,050	11.7	11.3	10.2	14.4	19.9	17.7	32	23	36	0.09	—	—	0.37	0.37	0.45	2.0	1.0	1.3	—	—	—	3
4	Bishop's Stortford	3,826	11,680	11,850	12,070	11.4	12.9	12.1	13.9	18.1	18.0	37	33	60	—	—	0.08	0.26	0.17	0.25	2.2	2.4	1.9	6.0	4.6	—	4
5	Bushey	3,866	12,880	13,800	14,310	10.6	9.1	9.8	14.4	16.1	20.7	43	14	27	—	0.07	0.07	0.54	0.29	0.21	1.9	1.7	1.6	5.3	4.3	—	5
6	Cheshunt	8,480	18,700	20,230	21,080	10.8	9.3	10.8	17.8	21.3	23.4	36	35	22	—	0.05	0.05	0.32	0.30	0.47	1.9	1.3	1.8	—	2.3	—	6
7	Chorleywood	1,989	3,967	4,058	4,207	9.3	12.6	14.0	13.1	19.0	13.6	19	39	53	—	—	—	—	—	—	1.3	2.0	3.3	18.9	—	—	7
8	East Barnet	2,644	35,270	39,160	40,200	10.3	9.5	8.9	16.9	19.5	17.3	25	37	30	—	0.03	0.07	0.40	0.33	0.42	2.0	2.0	1.9	3.3	1.3	—	8
9	Harpندن	3,157	13,090	13,560	13,910	11.1	12.2	10.7	17.4	17.2	17.6	31	30	53	—	0.07	—	0.23	0.07	0.14	2.8	2.1	1.9	—	—	—	9
10	Hemel Hempstead	7,193	21,120	21,530	21,850	10.4	10.4	12.1	18.7	18.7	22.5	38	25	28	—	—	—	0.28	0.51	0.64	1.8	2.0	2.0	—	—	2.0	10
11	Hertford	3,882	13,300	13,760	13,920	10.1	8.1	11.5	14.7	18.5	18.5	36	20	43	0.08	—	0.07	0.28	0.29	0.57	1.6	0.7	1.8	—	—	3.8	11
12	Hitchin	3,867	19,520	19,910	20,230	11.1	10.6	11.0	16.6	19.3	17.1	34	29	35	—	0.10	0.05	0.51	0.40	0.40	1.9	1.4	1.2	—	2.6	—	12
13	Hoddesdon	4,430	12,470	12,900	13,250	11.0	11.2	11.7	16.6	18.8	19.5	43	12	23	0.08	0.16	—	0.24	0.23	0.53	1.7	1.7	2.0	—	4.0	—	13
14	Letchworth	4,897	19,970	19,840	19,880	8.7	9.3	10.2	16.1	17.9	18.8	19	20	19	—	0.10	0.15	0.25	0.30	0.35	1.8	1.6	1.6	—	—	2.6	14
15	Rickmansworth	7,639	21,870	23,060	23,690	10.1	8.1	9.9	15.4	20.2	21.6	27	34	31	0.05	—	0.17	0.23	0.17	0.25	1.6	1.2	1.4	2.9	4.2	—	15
16	Royston	1,637	4,369	4,251	4,280	14.2	13.4	15.4	18.3	18.1	20.8	25	13	—	—	—	0.23	0.23	0.24	0.47	2.3	2.1	2.6	—	—	—	16
17	St. Albans	5,086	41,200	41,990	42,660	11.5	10.7	12.7	15.6	18.0	17.9	39	20	31	0.02	0.02	0.07	0.27	0.50	0.28	1.5	1.8	1.8	—	2.6	—	17
18	Sawbridgeworth	2,678	3,173	3,286	3,588	12.9	11.0	12.9	16.4	14.9	22.6	19	20	25	—	—	—	0.32	—	0.28	2.5	1.5	2.2	—	—	—	18
19	Stevenage	4,577	6,326	6,197	6,330	10.9	12.7	12.0	14.5	16.9	18.5	22	10	26	—	—	0.16	0.16	—	0.16	2.5	2.1	1.9	—	—	—	19
20	Tring	4,407	4,941	4,895	4,989	14.0	12.5	14.0	15.0	19.0	22.8	41	43	44	—	—	—	0.20	0.20	0.40	2.2	1.6	2.2	—	—	—	20
21	Ware	1,358	7,936	8,092	8,258	11.5	11.0	10.5	12.3	20.0	19.0	61	19	32	0.13	—	—	0.25	0.25	1.21	1.8	2.2	1.3	—	6.0	—	21
22	Watford	5,296	67,070	71,530	73,330	11.6	10.1	10.8	17.4	18.6	19.5	28	23	28	0.04	0.03	0.08	0.58	0.35	0.33	2.0	1.7	1.9	0.8	1.5	0.7	22
23	Welwyn Garden City	2,598	17,310	17,730	18,230	7.1	6.4	7.5	19.9	24.1	22.7	49	28	19	0.06	—	0.05	0.46	0.45	0.77	1.2	1.2	0.5	—	—	—	23
	URBAN SUMMARY	90,321	393,380	411,220	421,050	10.8	10.1	10.9	16.4	19.0	19.5	33	25	30	0.03	0.04	0.07	0.36	0.33	0.39	1.8	1.7	1.7	1.1	1.6	0.5	
	RURAL.																										
1	Berkhamsted	17,572	5,684	5,626	5,734	10.7	10.3	11.5	13.2	17.6	17.4	67	40	20	—	—	—	0.35	0.18	0.17	1.6	2.0	2.4	—	—	—	1
2	Braughing	45,570	9,037	9,172	9,334	11.9	13.6	15.6	16.7	16.3	21.5	26	53	45	—	0.11	—	0.11	0.11	0.75	2.8	1.7	3.0	—	—	—	2
3	Elstree	8,339	10,660	11,140	11,860	7.1	7.6	8.2	16.7	19.2	21.0	51	37	36	—	—	—	0.19	0.45	0.51	0.8	1.4	0.8	—	4.6	—	3
4	Hatfield	22,690	20,030	21,420	22,240	8.0	9.2	8.9	15.4	19.0	18.6	42	25	41	0.10	0.09	0.04	0.15	0.37	0.36	1.0	1.5	1.1	—	—	—	4
5	Hemel Hempstead	20,231	9,668	9,849	10,000	11.1	11.6	11.8	19.0	19.9	25.0	16	20	28	0.10	—	—	0.31	0.20	0.20	1.6	1.9	2.1	5.4	—	—	5
6	Hertford	32,661	7,398	7,652	7,739	9.6	9.8	12.4	16.5	21.7	22.4	25	30	19	—	—	0.13	0.54	0.13	0.39	1.6	1.2	2.5	—	—	—	6
7	Hitchin	82,527	20,470	20,710	21,140	12.3	11.3	11.1	16.2	18.7	18.8	21	36	22	—	—	0.09	0.15	0.14	0.33	2.0	1.7	1.5	—	—	—	7
8	St. Albans	31,832	23,810	24,260	24,650	8.6	6.5	9.2	15.4	19.6	16.5	38	29	54	0.04	0.12	0.41	0.34	0.21	0.24	1.5	0.9	1.6	8.0	—	4.8	8
9	Ware	29,102	9,711	9,911	10,120	11.9	11.6	13.6	16.3	18.5	20.1	44	16	35	—	—	0.20	0.10	0.10	0.29	2.1	1.9	2.3	—	5.4	—	9
10	Watford	18,245	20,370	21,360	21,860	10.0	10.1	11.3	17.2	16.9	17.7	23	17	26	0.05	0.09	0.14	0.25	0.23	0.64	1.8	1.5	1.3	—	—	—	10
11	Welwyn	5,430	4,792	4,890	4,992	8.6	12.9	10.8	14.6	15.7	18.8	14	91	42	0.21	—	0.20	0.21	0.20	—	1.5	2.0	3.0	—	—	—	11
	RURAL SUMMARY	314,202	141,630	145,990	149,669	9.9	9.9	10.8	16.2	18.6	19.2	33	31	34	0.04	0.05	0.07	0.23	0.23	0.37	1.7	1.5	1.7	1.7	0.7	0.7	
	COUNTY SUMMARY	404,523	535,010	557,210	570,719	10.5	10.0	10.9	16.4	18.9	19.4	33	27	31	0.03	0.04	0.07	0.33	0.30	0.38	1.8	1.7	1.7	1.2	1.4	0.5	

* Per 1,000 population.

† Per 1,000 live births.

‡ Per 1,000 live and stillbirths.

maintenance and treatment of all persons admitted to hospital for the purpose of orthopædic treatment.

At the end of the year a survey was made of the results of the action taken by studying the after-histories of 124 known and confirmed cases. Of these, 14 had died; 49 had made a complete recovery; 14 were then patients in isolation hospitals, and 47 had made a partial recovery. Of these 47, 23 were still in-patients of orthopædic hospitals, 17 were under out-patient treatment or supervision, and seven had not been recommended for further orthopædic treatment. Detailed reports were obtained from the Health Visitors after home visitation of these seven cases.

Tonsil operations and dental extractions were resumed about 24th November, 1947.

The foregoing notes seek to give a brief summary of the effects of this most damaging outbreak, which ranged throughout the country. Little, unfortunately, emerges from the various inquiries which serves to throw any light upon the causation or the spread of the epidemic. The prevalence seems to have been greater among males than among females, particularly so in the younger age groups. However, a striking feature of this outbreak is that, roughly, one-third of the cases—many of them severe—occurred among adults, and the number of deaths was higher for males than for females.

There is no evidence to incriminate swimming baths, water supplies, or particular articles of diet. Some case histories appear to suggest that persons, active or ambulant in the early stages of onset, were severely affected, and, in one fatal case, there is an interesting report of a paralytic illness affecting cats in the same household.

ENVIRONMENTAL HYGIENE AND SANITARY ADMINISTRATION.

1. MILK AND DAIRIES.

(a) *Milk (Special Designations) Regulations, 1936–46.*

(i) *Licences.*

TABLE 28.

	Tuberculin Tested	Accredited
Licences renewed 1st January .	210	207
New Licences issued	31	7
Relinquished	18	22*
Revoked	—	3
Suspended	4	—
Reinstated	2	—
Licences in force, 31st December, 1947.	221	189

* This figure included six transfers to Tuberculin tested.

The steady increase in the number of farms licensed for the production of Tuberculin Tested milk is a healthy sign. During the last five years the number of licences has increased from 88 to 221. At the end of the year 40 further applications were pending.

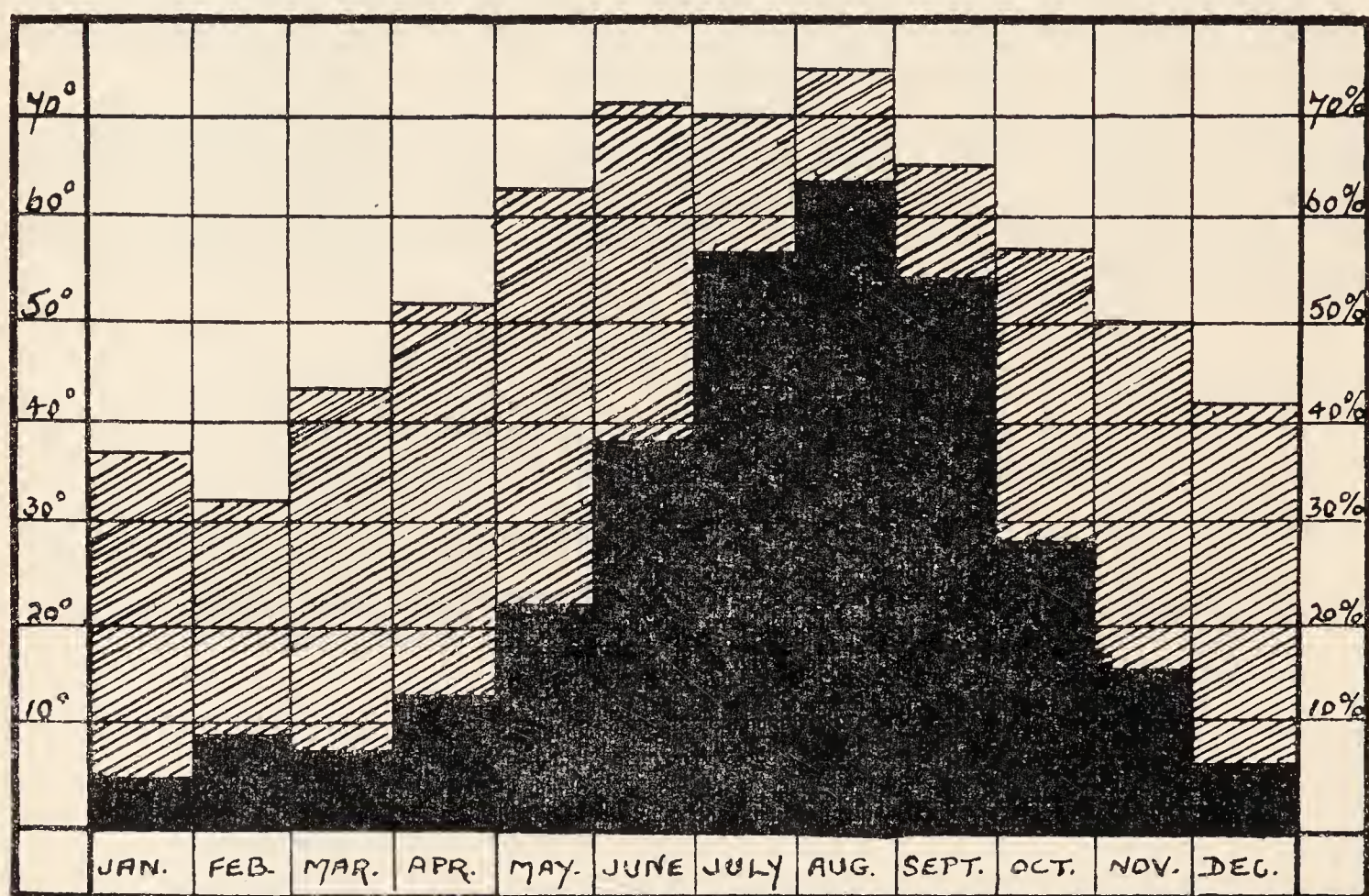
Almost half of the farms in the County are producing designated milk, i.e. Tuberculin Tested, 26 per cent; Accredited, 22 per cent. The remaining 444 (52 per cent) farms are non-designated.

(ii) *Sampling.*—The results of samples taken during the year were as follows :—

	No. taken	Satisfied Tests	Did not satisfy tests
Tuberculin Tested	1,097	768	329
Accredited . . .	900	607	293
Totals . . .	1,997	1,375	622

The hot summer of 1947 had a marked effect on the results of samples and imposed a high keeping quality standard. It will be noticed from the above table that 31·1 per cent of the samples did not satisfy the prescribed tests—all samples are examined both by the methylene blue and coliform tests. The number of failures meant taking a large number of repeat samples and entailed a great deal of advisory work. Producers generally responded very well, and it is hoped that the experience gained of working under high temperature conditions will be helpful to normal production in the future.

The graph which follows shows very well how the percentage of failing samples rises with higher temperatures.



MEAN MAXIMUM TEMPERATURE



PERCENTAGE FAILURES

(iii) *Tuberculin Testing of Licensed Herds.*—From the reports of the Divisional Veterinary Inspector, Animal Health Division, Ministry of Agriculture, with whom a very happy relationship exists, it is noted that of 23,990 animals submitted to the tuberculin test only 110 or less than 1 in 200 reacted and had to be removed from the herd. This is a new “low” figure—0·46 per cent—compared with 0·63 per cent for the previous year.

Various high figures up to 40 per cent are often quoted for the percentage of all animals in the country which would probably react to the tuberculin test, but the fact that, in a T.T. herd population of 23,990 animals, we can show a reactor percentage of ·46 only is ample proof of the value of the T.T. and Attested Schemes, and the desirability of doing everything possible to increase the percentage of tested herds in the County.

(b) *Milk in Schools Scheme.*

Further progress was made during the year to reach the standard recommended in the Ministry of Education Circular 119/46, viz. pasteurized, heat-treated, and tuberculin tested milk for all schools. By the end of the year only four schools out of 374 were outside these categories, and steps were in hand to change these over early in the next year.

The following table shows the number of school departments, nursery schools, and day nurseries taking the various grades of milk and the number of dealers supplying under the scheme :—

TABLE 29.

Dealers	Grade of Milk	School Departments	Nurseries
52	Pasteurized . . .	233	23
15	Heat-treated . . .	66	8
20	Tuberculin Tested . . .	37	3
2	Accredited . . .	2	—
2	Non-designated . . .	2	—
	Totals	340	34

Sampling of School Milk.—The scheme for sampling milk direct at the school or nursery continues. Each dealer is sampled approximately twice per term. In the event of repeated failures to comply with the standard the supply is cancelled and new arrangements made. This action was only required in isolated cases, however, and in general the sampling results may be regarded as satisfactory. These were as follows :—

Pasteurized and Heat-treated Milk.—Three hundred and forty-eight samples complied with the phosphatase test (adequacy of heat treatment) and 42 failed.

Three hundred and seventy-two samples satisfied the bacteriological (cleanliness) examination and 18 failed.

Tuberculin Tested Milk.—Of 118 samples taken, 82 complied with the bacteriological examination.

Accredited Milk.—Of 25 samples taken, 13 were satisfactory.

Non-Designated Milk.—Of 14 samples taken, nine complied with the standard.

(c) *Defence Regulation 55G.*

The scheme of administration outlined in the report for 1945–46 continues and is working well. The co-operation of the Sanitary Inspectors in the County is very much appreciated.

One new heat-treatment plant was approved during 1947. There are now 16 approved plants in the County including nine pasteurizing establishments ; 12 are of the holder type, three of the H.T.S.T. type, and one of the “ flash ” process type.

Sample results during the year are set out in Table 30.

TABLE 30.

	No. of Samples	Phosphatase Test		Bacteriological Examination	
				Methylene Blue Test	
		Pass	Fail	Pass	Fail
Pasteurized . . .	184	174	10	180	4
Heat Treated . .	124	104	20	112	12
Totals	308	278	30	292	16

The number of samples of heat-treated milk failing to pass the phosphatase test appears high but five of these were from one plant (where the "flash" process is employed) and ten at a second plant. The experience with the latter plant is interesting.

This is a holder plant and for sometime the results of phosphatase samples had been irregular indicating that either the milk had been inadequately heated or that the heated milk had become "contaminated" with raw milk. Detailed investigations were made and it was found that samples taken during processing gave varying results, some satisfactory and some otherwise. Any deliberate interference with the milk was soon discounted—in fact, the dairy were most anxious to trace and cure the source of the trouble. A recording thermometer was installed and the records were satisfactory.

The churns were first thought to be the cause of the trouble as some of the heated milk was run into churns which had previously contained tuberculin tested milk; the incomplete washing of churns leaving a small residue of raw milk was also considered. After further investigation, however, the churns were eliminated.

Attention was then focussed on the plant itself. The outlet valve was outside the holder and there was a short length of pipe in which milk could stand without being adequately heated. Samples of the first six pints of milk drawn off from each batch indicated high phosphatase figures reducing to under 2.3 l.b.u.

Agitation of the milk was rather poor due to slow moving paddles whilst the scale on the bottom of the holder was thought to prevent the ready transfer of heat from the jacket to the milk. The recording thermometer was 16 inches below the level of the milk, that is, well away from the bottom of the holder and outlet valve—thus, when the holder was emptied it took some minutes to uncover the thermometer bulb. Such an arrangement means that a thermograph will not record accurately the opening of the outlet valve but merely record the time at which the thermometer bulb becomes uncovered and ceases to register. This may be several minutes after the opening of the outlet valve.

The primary cause of the unsatisfactory phosphatase figures was considered to be the small amount of milk standing outside the heating jacket, and instructions were therefore issued requiring the rejection for retreatment of the first gallon of milk from each batch. Other recommendations included the siting of the thermometer bulb near the outlet valve, the provision of an indicating thermometer and the checking of the holding time by a clock.

I am pleased to record that the dairy put these items into operation with greatly improved results. Moreover, a modern type plant has been ordered, giving further indication of the desire to keep up with modern requirements.

The case demonstrated very well the results of team work between the County Health Inspector, the Local Sanitary Officer, and the Bacteriologists from the Public Health Laboratory service which, with the co-operation of the dairy management, resulted in a satisfactory solution.

(d) *Food and Drugs Act, 1938—Section 25—Biological Sampling of Milk for Tubercle Bacilli.*

The scheme for taking representative milk samples for biological examination carried on through 1947. The target was to sample all such herds in the County once every nine months, but owing to changes of staff and a shortage of guinea pigs it was not possible to do this in the first year of working. In spite of difficulties, however, 317 samples were taken. Of these, 54 samples gave inconclusive results, 246 were negative, and 17 positive (6.4 per cent of the completed examinations).

In the early stages samples were taken from milk in the course of delivery and two of the positive samples were from retail dairies handling mixed milks. In one of these cases supplies were obtained from five farms in a neighbouring county. Information was passed to the County Medical Officer concerned and in

reply it was stated that three of the farms were tuberculin tested and two non-designated—samples from these two herds gave negative results. In the second case the dairy obtained milk from six farms in this County. Bulk samples were taken from each farm and one positive result obtained. The protracted inquiries and many visits needed to try and clear up the two cases indicated that sampling for biological purposes other than at the farm is to be avoided wherever possible and the practice has now ceased.

The remaining fifteen positive cases were referred to the Ministry of Agriculture and Fisheries for following up—these actually involved thirteen farms, two being referred twice during the same year. Arising from these investigations one cow from each of twelve herds was removed for slaughter under the Tuberculosis Order, 1938. In addition, it was found that six other animals had been sent privately by the producer for slaughter between the time of sampling and investigation by the Veterinary Inspector. In three cases all initial inquiries proved negative and it was decided to take further milk samples after a short interval. Two of the herds were resampled in 1947 and further positive results obtained—the Veterinary Surgeon again visited and was able to take one cow from each herd under the Tuberculosis Order (these are included in the above figures).

(e) *Undulant Fever.*

During the year four cases of undulant fever were notified and, in accordance with the usual practice, routine inquiries were made regarding the milk supply.

In the first case, a nurse in a small hospital, the raw milk being supplied was shown to be positive to *Brucella Abortus* on biological examination. The milk was accordingly changed to pasteurized.

In the second case, a boy at a Children's Home, the milk supply was tuberculin tested (certified) and the herd was vaccinated and blood tested against abortion. Samples were taken and the results were negative. The boy had been away on holiday in another county some months previously, and although he had apparently felt tired and had little appetite shortly after returning, the case was not notified until some weeks later. The Medical Officer of the county concerned arranged for sampling. These gave negative results but so much time had elapsed between the visit and the investigation that the herd had almost completely changed and the results must be regarded as inconclusive. No other cases in the area are reported to have been notified.

A common milk supply was eventually found to be concerned in the other two cases. Some three months separated the two notifications, but a number of milk supplies were involved in the first case as the patient often worked away from home. Moreover, the "home" supply was reputed to be pasteurized but the second case disproved this. On the second notification, detailed inquiries were put in hand. The dairy supplying the homes handled pasteurized, tuberculin tested, and non-designated milk. The pasteurized and tuberculin tested sources were eliminated and action concentrated on the two non-designated farms. In the meantime, through the ready co-operation of the dairyman and by arrangement with the Milk Marketing Board, it was possible to switch all raw milk to a pasteurized depot and for the dairy to take pasteurized milk only—this actually took 24 hours.

Of the two non-designated herds, one gave completely negative results. In the other case, two of three groups were positive on the whey agglutination test. Individual samples were taken but on the first examination all the animals in one group gave negative results. Further samples showed one animal positive to the whey agglutination test. The second positive group revealed two animals with positive whey agglutinations. The producer concerned was

most co-operative in all these examinations and on the strength of the agglutination results volunteered to have the three animals slaughtered! The postscript to these inquiries is interesting. Milk from two of the animals which had given positive agglutination results was inoculated into guinea pigs, one case with positive results, the other negative.

In addition to the above, one inquiry was received from an adjoining county involving a raw milk supply in Hertfordshire. Three animals out of a herd of 28 gave positive whey agglutinations. Guinea pigs were inoculated, giving two positive results, but unfortunately the producer/retailer was unwilling to dry off and fatten the two animals for slaughter.

This case reveals a weakness in present milk legislation. Power is given to prohibit the sale of milk from cows suffering from "any infection of the udder or teats which is likely to convey disease", in Section 25 of the Food and Drugs Act, 1938, but the duration of any such "stop" notice is not defined. Under the Milk and Dairies (Consolidation) Act, 1915, one could stop an infected milk supply for five days, and presumably a similar notice would be applicable under the Food and Drugs Act, 1938. In practice, however, it is impossible to enforce these provisions because evidence of infection following guinea pig testing is always at least six weeks old, and even if one could stop the supply on the strength of this evidence the notice could only be renewed on fresh evidence which would mean waiting another six weeks. The only practical solution is pasteurization of the milk.

2. RURAL HOUSING.

Good progress was made by most of the Rural District Councils in connection with the Rural Housing Survey and by the end of the year 70 per cent of the houses had been inspected.

Table 31 gives details of results in each district.

TABLE 31.

Rural District.	Total No. of houses to be inspected.	Total No. inspected at 31.12.47	Classification.				
			1.	2.	3.	4*.	5.
Berkhamsted .	1,109	418	102 (24.4%)	52 (12.4%)	250 (59.8%)	—	14 (3.4%)
Braughing . .	2,375	1,280†	133 (11.7%)	167 (14.7%)	567 (50.0%)	—	266 (23.5%)
Elstree . .	1,503	1,503	1,338 (89.0%)		65 (4.3%)	6 (0.4%)	94 (6.3%)
Hatfield .	3,603	2,990	379 (12.7%)	691 (23.1%)	1,643 (55.0%)	—	277 (9.3%)
Hemel Hempstead	2,279	1,963	660 (33.6%)	474 (24.1%)	481 (24.5%)	29 (1.5%)	319 (16.3%)
Hertford . .	1,704	934	219 (23.5%)	173 (18.5%)	438 (46.9%)	—	104 (11.1%)
Hitchin .	5,219	3,566	969 (27.1%)	1,386 (39.1%)	927 (25.9%)	—	284 (7.9%)
St. Albans . .	4,558	4,558	3,376 (74.1%)		810 (17.8%)	—	372 (8.1%)
Ware . .	2,100	731	169 (23.1%)	208 (28.5%)	155 (21.2%)	—	99 (27.2%)
Watford . .	3,400	1,432	1,273 (88.9%)		95 (6.6%)	22 (1.6%)	42 (2.9%)
Welwyn . .	1,002	1,001	112 (11.2%)	118 (11.7%)	657 (65.7%)	—	114 (11.4%)
Whole County .	28,852	20,376†	11,999 (59.3%)		6,088 (30.1%)	57 (0.3%)	2,085 (10.3%)

* Classification 4 is provisional only—houses in Classes 3 and 5 will be reviewed on completion of survey.

† 147 houses not classified.

The Technical Panel of the Joint Advisory Committee, consisting of Medical Officers of Health and Sanitary Inspectors, considered during the year the standard of fitness for the County in the light of the "16 point" target

standard recommended in the Fourth Report of the Rural Housing Sub-Committee (Hobhouse) of the Central Housing Advisory Committee and the "8 point" minimum legal standard recommended for inclusion in future housing law by another Sub-Committee (Mitchell) of the Central Housing Advisory Committee. In view of the similarity of views expressed on fundamental points it was decided that houses in Hertfordshire should continue to be measured against the County Joint Advisory Committee's standard subject to minor amendments. These amendments include the question of hot water, and it was decided that in view of the fact that the Fourth Hobhouse Report recommends that a fit house should "be provided with a sufficient and adequate means of hot water for domestic purposes" a hot water supply should be included in the Hertfordshire standard for classification purposes.

A complaint was made to the County Council during the year by four local government electors under Section 169 of the Housing Act, 1936, that a Rural District Council was not carrying out the survey and was not requiring repairs to houses occupied by the working classes. After investigating the position the County Council decided not to hold a public inquiry as the Rural District Council agreed to proceed with the survey—in fact, by the end of the year almost half of the houses had been inspected and notices served where it was found necessary.

Reference was made in the last report to the scheme inaugurated by the County Council to assist local authorities to carry out the survey. Two temporary housing officers were appointed by the County Council, and they commenced duties in June of the year under review.

Three districts applied to come into the scheme, which works on the following lines:—

Assistance is only given where the local authority asks for help—this is usually because the existing staff is unable to take on extra work. The officers are posted to the district concerned and work under the general direction of the Senior Sanitary Inspector, carrying out inspections, completing records, and indicating the provisional classification of all houses surveyed. The officers work from the local authority's office and use the local authority's inspection card. Any houses found to be needing urgent repairs are brought to the notice of the Senior Sanitary Inspector so that he can take action as considered necessary. The Housing Officers' attention can be given solely to housing and the rate of progress is very good—the average for each officer is between 50 and 60 houses per week. The scheme also has the merit of uniformity of classification.

Local authorities accepting assistance under the scheme reimburse the County Council in respect of the salaries and the subsistence of the Housing Officers. This is based on the time the officers spend in the district. The scheme has worked very well and demonstrates the value of co-operation between the County Council and District Councils.

The Rural Housing Survey is revealing the immense problem in rural areas and it is a matter for regret that local authorities are not yet able to implement the Housing Acts. From the public health point of view, early rehousing of the occupants from the totally unfit houses is essential. Moreover, repairs and structural improvements are mounting and unless a start is made soon to tackle this problem many houses which are at present capable of repair will fall into the unfit class and become "not capable of being made fit at a reasonable cost". Taking the figures for this County alone the cost of providing new houses to take the place of the existing unfit houses must give cause for serious thought.

New Housing.—The following table shows the position regarding new housing in the County at the 31st December, 1947. It is taken from the Ministry of Health housing return:—

TABLE 32.

District	Permanent Housing		Temporary Housing	
	No. Under Construction	Completed	No. Under Construction	Completed
<i>Boroughs.</i>				
Hemel Hempstead	182	61	—	50
Hertford	40	28	—	50
St. Albans	275	103	9	100
Watford	324	168	—	100
<i>Urban Districts.</i>				
Baldock	138	32	—	—
Barnet	78	18	—	100
Berkhamsted	4	20	—	30
Bishop's Stortford	104	100	40	45
Bushey	100	69	—	50
Cheshunt	203	69	—	135
Chorleywood	32	6	—	—
East Barnet	91	99	—	50
Harpenden	137	50	—	25
Hitchin	78	62	—	50
Hoddesdon	22	66	—	38
Letchworth	158	82	—	50
Rickmansworth	147	218	—	100
Royston	31	31	—	—
Sawbridgeworth	29	26	—	10
Stevenage	92	46	—	20
Tring	44	26	—	—
Ware	70	34	—	13
Welwyn Garden City . . .	40	136	52	98
<i>Rural Districts.</i>				
Berkhamsted	6	20	—	—
Braughing	126	84	—	—
Elstree	264	127	—	100
Hatfield	133	44	—	66
Hemel Hempstead	56	26	—	35
Hertford	68	48	—	—
Hitchin	57	91	—	38
St. Albans	119	34	—	6
Ware	92	14	—	—
Watford	81	35	50	—
Welwyn	24	—	—	46
Total for County	3,445	2,073	151	1,405

3. REFUSE DUMPS.

Under the Hertfordshire County Council Act of 1935 any persons depositing refuse within a County District must, if the material is derived from outside that district, be licensed by the County Council and the local authority.

Twenty-one such dumps are licensed, six new licences being issued during the year. Two of the sites receive household refuse from London Boroughs. These sites are respectively 330 and 140 acres in extent and 110,000 tons of refuse are brought in every year. At the other 19 dumps inorganic and non-putrescible refuse is deposited. This consists largely of clay, earth, and clinker from builders' excavations, etc. Two of the sites receive screenings from destructor plants.

Dumping is generally carried out into existing or old gravel workings. In some areas there is a high surface water level and the pits are often flooded. Refuse, excluding household and destructor screenings, is allowed to be deposited in water and up to the end of 1947 no adverse effect on the water had been noted.

There is no doubt that the system of licensing dumps makes supervision

simpler and where a licensed dump is available in an area it is used, and refuse is not deposited around the countryside to the extent that it was before the Act was passed. The sites are managed entirely by contractors and good co-operation is obtained. Difficulty occurs only if unauthorized persons bring in unsatisfactory refuse when the site is unattended.

4. NURSING CADET CORPS.

Lectures on environmental hygiene followed by outside visits were again arranged for the Nursing Cadet Corps at the Old Hale Way, Secondary Modern School, Hitchin.

5. SWIMMING BATHS.

In order to ascertain whether the waters of swimming baths used by schools in the County were satisfactory, a survey of all baths was carried out after the close of the 1946 season. Attention was given particularly to the water supply, method of purification, including chlorination, supervision and control by sampling, provision of showers and footbaths, including regulations to prevent fouling, and provision of adequate sanitary accommodation.

Twenty-seven baths were covered by the survey—three being outside the County. They may be classified as follows:—

Continuous filtration with chlorination	18
Continuous filtration, ozone system of sterilization and chlorination	1
Continuous filtration and ozone system of sterilization	1
Constant flow through bath	4
Fill and empty system	2
Combination of continuous flow and fill and empty system	1
Total	<hr/> 27 <hr/>

The 20 baths with a continuous filtration system were approved.

Two of the four "constant flow" baths were refused approval. Both baths were fed by river water of unsatisfactory quality and purification was inadequate. Of the other two baths in this category, one was provisionally approved. The supply water was extremely doubtful in quality but effective means of chlorination was available. The fourth bath was approved subject to improvements and alterations being carried out to the system, viz. the provision of main water in place of that from a stream of doubtful quality with circulation and efficient chlorination of the water. It was also desired to incorporate a filtration plant but approval was refused by the Ministry of Health. The Education Committee made a grant of 25 per cent towards the works.

The two baths using the "fill and empty" system were approved subject to satisfactory sampling results being obtained—in one case improved chlorination was necessary.

The one bath where a combination of a continuous flow and fill and empty system was in operation was approved provisionally, subject to satisfactory sampling results, plus measures being taken to remedy excessive algæ growth and discolouring.

Of the 27 baths, 13 are owned by local authorities, nine are privately owned, and five are situated on school premises. All the baths in the County are of the open-air type except one. Two local authorities have made by-laws.

Sampling.—With the co-operation of local authorities a scheme for regular sampling was instituted as follows: monthly bacteriological sampling of pools which were considered satisfactory; fortnightly bacteriological sampling from "doubtful" pools supported by occasional full chemical and bacteriological examinations. Seventy-four samples were taken during the year and only eight were unsatisfactory. One sample was also taken from a bath which had been previously refused approval, but the result was unsatisfactory.

The survey has served a very useful purpose. Whatever the system, regular sampling is invaluable. It has shown that effective chlorination is most important, and, in fact, although some of the water supplies must be regarded

as "suspect", intelligent management with the right supervision showed good sampling results. This was particularly the case with one bath where the Sanitary Officer showed keen interest and the good results were largely due to his supervision.

6. RIVER LEA.

The condition of the River Lea still gives rise for concern. During the year a conference was held at the Ministry of Health with representatives of the various District Councils concerned.

It is understood that experimental work is in hand to improve the quality of a sewage effluent discharging into the river before it reaches Hertfordshire. The work is being pressed forward by all parties and it is hoped that an improvement in the river will soon be noticeable. One of the difficulties is that the River Lea has dried up so much, a state common to many other rivers and streams in the County, that dilution is negligible and the River Lea as it enters the County is largely sewage effluent.

7. PARATYPHOID.

An outbreak of paratyphoid occurred in the village of Wheathampstead during a spell of excessively hot and dry weather. At the invitation of the Medical Officer of Health the County Medical Officer visited the village and took part in the preliminary investigations.

Out of a community of 66 people occupying 12 houses, there were 23 cases, made up of four men, ten women, and nine children. The outbreak was of the explosive type and immediate action was taken locally. All persons with positive specimens were at once removed to an isolation hospital and detained until three negative results were obtained. All households where a case had arisen were carefully watched and numerous specimens taken. In fact, no less than 900 specimens were collected in all, comprising samples of urine, fæces, sewage effluents, milk, drinking and river water.

The cause of the outbreak was not conclusively established although two persons were thought to be urinary carriers. One of the problems was that there was no common factor to link the cases. It was established that foodstuffs were satisfactory on arrival in the area and this possibility was excluded. All the houses were supplied with pasteurized milk from two sources. In the course of inquiry, however, it was found that one man, until a few months previously, had worked on a nearby farm and still obtained a quantity of raw milk from the farm. This was collected early and owing to the shortage of milk in the early part of the day in most households, and the good cream line of the farm milk as compared with pasteurized milk, it was found that there was a good deal of interchange of milk between various households. One means of spread of the outbreak, therefore, may have been the contamination of the milk utensils from one house to another.

It is interesting that the outbreak was confined to a small community, did not spread, and there were no secondary cases. This is a tribute to the effective and prompt action taken and the teamwork displayed by the Medical Officers of Health and Sanitary Officers concerned in conjunction with the Medical Research Council Laboratory for the area.

8. DUST AND NOISE FROM BRONZE POWDER FACTORY.

During the year a complaint was made regarding an alleged nuisance of dust and noise from a factory in the north of the County engaged in the manufacture of bronze powder.

The manufacture of bronze powder is a relatively new industry in this country, and there is little first hand experience with the associated problems.

Such a manufacturing process must be attended by a dust and noise problem, and the trouble arose from the fact that the factory was surrounded by houses. The local authority had been cognizant of the problem for a number of years and various methods (including the building of a wooden baffle wall

outside the factory) had been adopted by the factory management to reduce the nuisance.

A conference was held at the factory between representatives of the County and local authorities, H.M. Medical Inspector of Factories, and members of the factory management and the position was discussed in detail.

The factory worked on an air suction system for dust removal, but it was possible, however, for the dust which passed through the filters to be discharged to the air. To deal with this trouble, part of the factory changed over to a closed circuit with no external discharge.

There is no evidence to show that bronze or aluminium dust causes any harmful effects to persons. In certain parts of the factory, workers become covered with fine dust but there is no abnormal illness rate.

Owing to the manufacturing process it is impossible to stop noise entirely, but to reduce outside noise the management installed a mechanical ventilation system so that the windows could be kept closed. This had a beneficial effect, but in hot weather it was found that the working conditions were unsatisfactory, and the windows had to be opened.

The noise is less than a busy road or railway, but its incessance would certainly be irritating and disturbing, particularly at night time. Unfortunately, it is technically necessary to operate the factory over a full 24 hours, and also over week-ends; this, of course, added to the problem.

It can be stated that there is now no nuisance from dust but the noise problem persists, although some of the machinery has been replaced by a different type. This has only meant that one noise is exchanged for another. Advice from technical experts has been obtained, but people in the area still have room for complaint on this matter.

This experience underlines the need for proper planning of towns and the segregation of residential and industrial properties. The only complete solution of the above problem would be the removal of the houses or the factory.

9. FOOD AND DRUGS ACT.

The work under the Sale of Food and Drugs Act is carried out by the Inspectors appointed for the purpose. Analyses of samples taken are made by the County Analyst of the Analytical Laboratory, Peak House, 20 Eastcheap, London, E.C. 3, from whose reports the figures on p. 48 are taken for the year 1947.

NATIONAL HEALTH SERVICE ACT, 1946.

As soon as the details of the requirements of the new Health Service were received an Interim Health Committee was appointed consisting of the Chairman and Vice-Chairman of the County Council, the Chairmen of the Finance and General Purposes, Public Assistance, Public Health, Maternity and Child Welfare, Tuberculosis, Hill End Visiting, and Mental Deficiency Acts Committees and County Alderman L. A. Freeman in order that progress might be made with the preparation of the new schemes under Sections 22-29 and Section 51 and for negotiating with the County Nursing Association.

This Committee met in June and approved schemes under Section 26 (Immunization and Vaccination) and Section 27 (Ambulance Service). Later in the year the full Health Committee was constituted.

The schemes dealing with the remaining Sections were prepared during July and August, and I must here record my indebtedness to Dr. Livingstone, my Senior Assistant, for his work in reducing to the form required by the Ministry of Health the numerous notes which had been prepared on the desirable extensions and changes in the Health Services in this County. The fact that the schemes were approved by the Ministry without any substantial alteration is a tribute to the thought which had been given to the preparation of them both in this office and in their passage through the Health Committee.

TABLE 33.
SAMPLES SUBMITTED FOR ANALYSIS.

	Samples analysed	Samples unsatisfactory
Almond Flavouring	1	—
Apple Purée	1	—
Aspirin Tablets	1	—
Baking Powder	2	—
Beef Cubes with Vegetable Extract	1	—
Beef Loaf—minced	1	—
Beef Pie	1	1
Butter	2	—
Cake Flour and Cake Mixture	2	—
Caraway Seed	1	—
Chocolate Cup	2	—
Coffee	2	—
Coffee and Chicory	1	—
Cooking Fat	1	—
Culinary Colouring	1	—
Flavouring Essence	1	—
Fruit Cup	1	—
Fruity Sandwich	1	—
Gelatine	4	—
Ginger—ground	2	—
Ginger Sponge and Mixture	1	—
Ginger Wine—malt	1	—
Golden Raising Powder	2	—
Golden Syrup	1	—
Gravy Browning	2	—
Honey	2	—
Horseradish in Vinegar	1	—
Jam	2	—
Lard	1	—
Lifo-Seltzer	1	—
Liviat	1	—
Malto-Bar	1	—
Margarine	1	—
Marmalade	2	—
Meat Paste	1	—
Milk	568	36
Milk—condensed	1	—
Mint Sauce	1	—
Mustard	2	—
Mustard Mixture	1	—
Nutmeg—ground	1	—
Onion soup	1	—
Orange Drink—Crystal Quench	1	—
Pepper	1	—
Phosphor Nerve Tonic	1	—
Pudding Mixture—Coconut	1	1
Sauce—Worcester	1	—
Sausages and sausage meat	9	2
Sausages—preserved	1	—
Savouries	2	—
Savor Mix	1	—
Soup Powder and Tablets	2	—
Soya Malt	1	—
Steak Pie	1	—
Sugar	1	—
Sweetening Tablets	1	—
Tea	3	2
Vinegar	3	—
“ Appeal to Cow ” milk samples	654 34	42 —
Totals	688	42

